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OCTOBER 1994 Vol.8 No.9

AMIGA User International

CONSTANT FACTORS

5 The Amiga Dimension
It's not a technology business that companies like Commodore are in, comments Managing Editor Antony Jacobson, it's a people industry, mourning the death of the Father of the Amiga.

8 SuperDisk 43
This disk will give you three FULL games and they're all absolute crackers. How can three disks like these be packed onto just one? It's close to witchcraft or maybe it's down to David Taylor's late nights at the office.

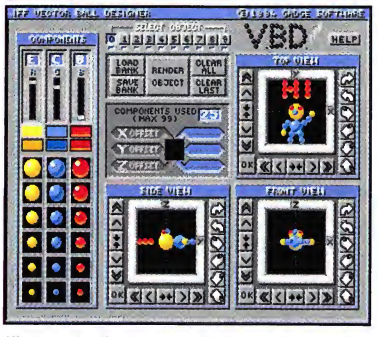
Wow! My animals are taking over this world easily.

12 SuperDisk 44
Another disk that needs to decrunch itself to three. This one is packed with hot utilities and doesn't have one byte free! Except of course it's all free to you! Get your disk collection in order with the brilliant Disk Manager 4. Run a full system check with ARTM and create stereograms with the fantastic Auto-Stereogram. David Taylor explains how it's all so easy.

16 NewsFile
Anthony Mael and Martin Witton dive into the diverse world of computerdom and come up spouting the news, views and gossip for you.

67 The Video Column
A collection of disks for video work are rounded up and interrogated by Alan Puzey.

80 The PD Stakeout
Gideon Overhead provides another stimulating insight into the latest in the world of Public Domain software.



The quality of some public domain releases rivals commercial software.

88 Amiga Answers
Andy Eskelson tackles another batch of Amiga problems and introduces *AUI*'s new Toolbox feature.

96 Write to Reply
Bud Vennos gives some intelligent replies to some intelligent questions and some rather frank replies to some rather stupid ones.

TEST DRIVE

24 Hard on the Outside
David Taylor test drives two hard bargain external drives for the A1200.

The drive appears just like any other on the Workbench screen.

26 Sleeping with the Enemy?
The Vortex board is now available to turn your Amiga into a speedy PC. Stephen Broadbent sees if betraying your principles brings worthwhile rewards.

30 It's Got a Good Beat
This new heart monitor forces David Taylor to get out of his comfy chair and take some exercise. Was it worth the effort, you may ask?

32 AMOS Liberator
Andrew Deeley examines the latest addition to the AMOS family of programs.

33 Samsung SP 2147
An amazing low priced colour printer that made Gideon Overhead quietly explode. Well, nearly...

34 Multiframe
ADPro is a must for serious Amiga users, but Gary Fenton looks at a program that's ready to make it even better.

36 Paravision SX-1
Will the SX-1 fulfill your CD fantasies? The eagerly awaited expansion device is here for the CD 32. David Taylor and Gideon Overhead take it apart and find out.

Take a look inside – 4 Megs of RAM on those SIMMs.

37 CD For The 120
A double whammy? T
Zappo CD drive for the A1200 c
revolutionise an already impressi
machine. David Taylor test drives.

USER PORT

56 The Truth abou the Amiga
Wil Moberley reveals what the graphi
professionals really think about t
Amiga's capabilities.

60 First Steps in Comms
The 'net is growing in popularity.
how do YOU get involved? Patri
Howlett leads the less sure of the w
into the world of the informati
superhighway.

MENTOR

64 Programming Tips
Delays everywhe
we look, but y
might want the
Paul Overaa explai
why and supplies t
code.

65 Are Info
File handling a
Arexx, the whys a
wherefores accord
to ARexx guru, P
Overaa.

41 ***AUI*** **Special Report**

Graphically Speaking

The *AUI* comprehensive guide to the exciting world of Amiga 3D. Barry McCarthy leads the *AUI* team that rounds them up and draws up a list of what's what. Including tips and help, there is even a great offer for a FREE disk with a demo of the latest version of Real 3D for every *AUI* reader that wants it!

COMPETITION

66 **Win Samsung's Colour SP 2417 Printer!**

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SPECIAL OFFERS

18 **"The Shepherd"**

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49 **Real 3D**

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70 ***AUI*** **Subscription**

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72 **Entertainment Now!**

David Taylor, Andy Moss and Ashley Cotter-Cairns, returning with a special report on soccer games, round up this month's collection of fun.
Ishar 3 (Simarils) . Clockwiser (Rasputin) . Supremacy (Hit Squad) . Out to Lunch (Mindscape) Banshee CD 32 (Core Design) . It's a Funny Old Game Part 1 – On the Ball (Daze) vs Tactical Manager (Black Legend) . It's a Funny Old Game Part 2 – Football simulations get put through the paces.

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...And What They Used

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The Amiga Dimension

What's a brand? No, not something burned into the hide of a steer by a cowboy, but the commercial name of a product or company. IBM last year was the third most valuable brand in the world. Now it has fallen to 290th. Just a year and one of the largest companies in the world has been rolled up and passed by others in its field. The leading edge can be sharp and slice off the feet of clay of those who do not move fast enough to keep ahead of it.

That's what happened to Commodore. It bought the Amiga, an advanced machine that became a great brand, but got cut down because it did not corporately realise that in a technology-driven industry you have unceasingly to keep driving forward.

NewsFile reports that Atari, now run by Commodore founder Jack Tramiel, may be threatened with bankruptcy. Atari never got up to speed after the early ST days even with the Lynx, developed for software company Epyx by RJ Mical and Dale Luck, two of the team that created the Amiga.

The first software leader to have faith in the Amiga was Trip Hawkins who created Electronic Arts, especially for DPaint. He has now gone off and founded 3D0. Hawkins knows Amiga people well. RJ Mical and Dale Luck are working on 3D0. But DPaint has lost its way mainly, it is thought, becasuse Dan Silva, who wrote DP1, 2 and 3, has moved to another company and built Studio 3D for the PC.

Good people, like Mical and Luck, Hawkins and Silva, are the key to success in any business, but particularly in technology.

Gary Kildall, whose death is reported in NewsFile, was brilliantly creative. His CP/M was the most succesful operating system of its time and he and his DRdos might have been where Bill(ionaire) Gates and MSDOS/Windows are today but for a quirk of fate.

The saddest news though for me is that Jay Miner, the Father of the Amiga, has died.

I met Jay many times and liked him very much. He was universally popular, not just because without him the Amiga would not have been created – he ran the technogenius team that built the Amiga before Commodore bought it – but because he was such a very pleasant and genuine guy. He suffered for years with kidney disease and even had a transplant from his sister which unfortunately failed recently.

His death is a great pity because after a number of years separated from Commodore he had, the last time I saw him he told me, returned as a consultant. "They've even given me a 4000!" He said delightedly.

Jay Miner was responsible for the Atari 4000 and 8000 consoles that started the whole home computer boom. Then with the others in the Amiga company like Dave Morse, he initiated the original idea in 1982 of the super games machine that became, much to their annoyance, the business-based A1000.

The technological world has changed hugely since 1982. The unknown Bill Gates has gained global celebrity. Tramiel went from Commodore to Atari and from success to failure. Mical and Luck have journeyed from company to company taking their Amiga-based expertise with them. Hawkins has moved from EA to 3D0, hoping to make that the Amiga of the late Nineties. The great IBM is losing its market and its value fast. Kildall and Miner are dead. And Commodore? We don't know if that once highly valuable brand is even going to survive.

CBM UK MDs David Pleasance and Colin Proudfoot are going for a management buy out survival package and I have just met the forceful and innovative Robert Maynard, who four months ago had never seen an Amiga, but is now the boss of Paravision which has brought out the SX-1, – reviewed in this ***AUI*** – perhaps the vital add-on for the Amiga CD 32.

People like Pleasance and Proudfoot and Maynard may well be the key to the Amiga's future. Even in this industry, it's not the technology or the brand that really counts. It's the people.

Antony Jacobson
Managing Editor and Publisher

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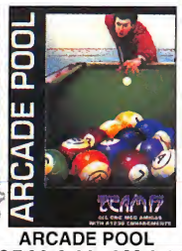

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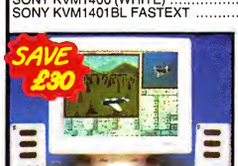

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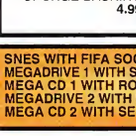

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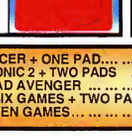

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AUI SuperDi

HOW IT WORKS

Firstly, DON'T PANIC! If you can press two keys in order, you can use this disk.

In order to cram three disks onto this one, we've archived them, which allows us to save space. The SuperDisk automatically decrunches these games to a separate disk for each. You'll need three spare disks (any disks except SuperDisks will do - the SuperDisk will not use SuperDisks - so you'll have to use other magazines' coverdisks if you don't have any others spare (why would you want to keep theirs anyway?!)). As you load the SuperDisk, it will briefly require the second SuperDisk (No.44). Insert that into any drive and the SuperDisk will do the rest for you. If you only have one drive, it may take a little disk swapping at the beginning, but it was the only way, I'm afraid.

When you are asked, simply answer Y for yes to whichever game you want and have a disk ready.

When the SuperDisk asks you to insert your spare disk, do so and press return (the really big key towards the right of the keyboard which has a line going down and turning into an arrow pointing left!!!).

IMPORTANT!

If, when you insert your spare disk, the Amiga shows you a requester that states the disk you have inserted is not a DOS disk, this is because the disk you have inserted has not been formatted as an Amiga DOS disk before. Simply click on 'Cancel' and continue with the installation. The SuperDisk will format the disks for you, so you needn't worry.

Don't use any disks that have anything you require on them, because when installing the utilities, the SuperDisk will format the disk and all information will be lost.

This Superdisk will create THREE game disks for you. Each disk will contain a FULL game. David Taylor, *AUI*'s resident games fanatic, introduces the games.

The Shepherd

This game ranks as the best we've ever had on our SuperDisk. "The Shepherd" is a "god" game that will be adored by Populous fans and all lovers of the genre.

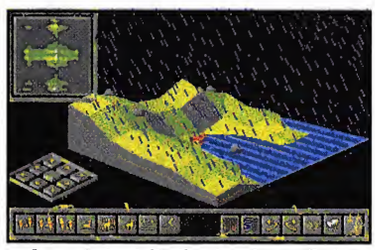
A nice twist in this game is that you take control of not just one race, but many. You have several species at your control each level and can decide which ones are more likely to survive the climes of that level. One level even contains dinosaurs, whilst one of the more extreme has helicopters and tanks!

Let's start with the basics though.

The game will autoboot and offer you the option of reading the docs, which supply more detailed instructions than I can include here. The game itself will load on any machine with 1.3 or above OS and 1 Meg of memory. If you have any external drives and only 1 Meg, you must remove them first (which is going to be a problem if you have an A1500 with only 1 Meg, but we doubt there's anyone who has that machine but no more memory).

It can also be copied to hard disk if you want. Simply boot your hard drive and copy the Shepherd files into a directory. It can be run by double clicking on the Shepherd icon.

When the game has loaded, Populous fans will feel at home. The game is icon driven and the map is displayed over the rest of the screen. The idea of the game is to populate the land entirely with your species and to destroy the enemy. To do this, you need to ensure your animals prosper by placing them in fertile areas and giving them food. In return, they'll give you mana, that will let you get more animals and also (more interestingly) phenomena like earthquake and volcanos that you can visit on the poor enemy's flocks. Ha ha!!



As we start out, it's time to get some flocks.

Our sheep are redroducing and giving me mana.

My mana lets me do things like set volcanoes on the enemy!

This is a quick description of the icons to get you started. From left to right, they are:

Move: Moves the flock (Der!)
Split: Splits the flock (Der! Der!)
Merge: Merges two flocks together.
NI: Scares animals that are on screen - useful if your flocks are being attacked.
Earthquake: Causes an earthquake and makes local land infertile.
Buy animal: Allows you to buy animals and plants to help you conquer. Plants can be placed anywhere on the map, but animals must be placed close to your shepherd symbol.
Lower land: Lowers land that is visible on the screen.

PROG

Raise land: Raises land that is visible on the screen.
Lightning: Can set forests on fire, but you must aim well.
Virus: This spreads a virus. It can only be used on your animals, but will spread to the enemy.
Volcano: Causes a devastating volcano.

Wow! My animals are taking over this world easily.

A desert level like this one is better after some rain. My ducks don't mind the water.

That's seen off one level of the bad guys, on to the next.

Lower water: Temporarily lowers the water level.
Raise water: Temporarily raises the water level.
Rain: Well, it makes it rain! Useful for forest fires though!
Erode: Smooths the local land.
Carnivorous plants: These hunt out animals and multiply. A great way of depopulating your enemy's land.

Note that not all buttons are available on each level. You will need sufficient mana to see and use some of these. If you don't have enough, you

sk No.43

RAMS

need to help your animals to multiply.

You can move around the map in a number of ways. If you left click on a section of the map displayed in the top left of the screen, you will jump there. You can move screen around, using the arrows displayed in the bottom left of the display or with the cursor keys on your keyboard.

There are also some icons that appear along the bottom on the right on each level. From the right, they are: pause, give up, rotate screen right, rotate screen left, Enemy Mana meter, your mana meter.

After completeing each level, you will be given a code for that level, which means you can jump from level to level without having to start from scratch.

These are all the controls and the theory behind the game. If you are having problems turning the enemy's flocks into a scene from an abattoir, then here's a quick guide to the first three levels:

Level 0:
Animals as they appear when buying an animal from left to right: bear, land turtle, sheep, oak, fir tree, birch tree, bush, horse, cow.

Buttons from left to right: move, split, merge, NI, earthquake, buy animal, lower land, lightning, virus, volcano.

Level 1:
Animals as they appear when buying an animal from left to right: flamingo, rhinoceros, ape, deer, cactus, shrub, reed, birch tree, exotic tree, palm tree, lion, land turtle, cow.

Buttons from left to right: move, split, merge, earthquake, lower water, buy animal, rain, lightning, virus, volcano.

Level 2:
Animals as they appear when buying an animal from left to right: duck, cow, duckweed, fir tree, reed, penguin, seal, polar bear.

Buttons from left to right: move, split, merge, erode, lower water, buy animal, raise water, earthquake, carnivorous plants, volcano.

Tip: This is the best strategy for level 2 -

Let your animals grow to gain mana. Use this manna to buy carnivorous plants in areas with a lot of computer animals. If the computer has no more animals (or very few), it is time to plant a lot of reed (in water close to land). After a few years the reed will have grown enough to support a population of animals (penguins & seals) that is large enough to fill the manna-meter.

There are more instructions for you on the disk. Simply type Y when you are asked if you want to read them.

If even these aren't enough for you, Obbe Vermeij is offering the full manual to AUI readers for a reduced price of £13. Other people who obtain a copy of the game will have to pay £18, but AUI has got you preferential treatment!

If you want to register, send £13 to ***AUI*** Limited at the address shown in the front of the magazine. Don't forget to include your name and address. We'll pass on the money and your details and Obbe Vermeij will send you a full manual. This way, you'll be informed of any upgrades and improvements.

You could register direct to Obbe, whose address is in the docs, if you provide proof of purchase of ***AUI.*** If you do this though, you'll need to sort out an international money order or equivalent.

Gravity Force 2

The second full game will also autoboot and like "The Shepherd" can be installed to hard drive. To install it to hard drive, just double click on the install to HD icon from Workbench.

This game is a two player shoot 'em up and requires two joysticks. It has been gathering quite a following in the office recently, caused a few missed deadlines and even brought a few curious advertising people scurrying over form the recesses of their dark office.

You can read the docs if you want, by typing Y when you are asked.

The whole game can be configured to your wishes, with all options selected by pressing fire. It means that you can give one player a huge advantage and wipe the floor.

You have several options for your firepower and a wide selection of special weapons.

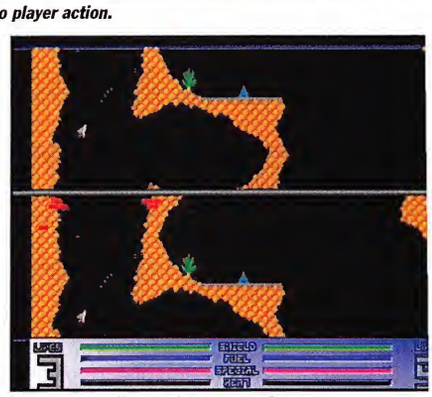
Very addictive two player action.

Select a world and a level (you can even configure variables like gravity and air resistance!).

Off you go. All you need to do is hunt down your enemy and kill him. The action takes place on a split screen, although the registration docs give you the address to register for a version that allows you to play over two Amigas (all for a measly £2).

Controls are easy. The Fire button activates your rockets. Up fires your gun and down your special weapon. Left and right rotate you each way.

Go to it and may the most bloodthirsty win.



I'm coming to get ya!

Wibble World Giddy

Last, but by no means least, a complete platform game. The disk autoboots, so simply bung it in the drive.

Giddy was on his way home one day when he felt the whole world go very strange...

This is the thoroughly implausible plot to this tongue-in-cheek platform puzzler. You need to help Giddy solve the puzzles and the greater puzzle of why life has turned upside down for the poor bird.

To control Giddy, move him around and press fire to jump. Objects can be collected by walking over them. To use them, pull down and press fire, then move the joystick to the left and right to select an object and release fire. The object will be used. For instance the first puzzle (to get you in the mood) simply needs you to pour the bucket of water on the fire.

Giddy sets out on his troubled travels.

The rest is up to you. You can't leave Giddy stranded now, can you?

If you are thirsty for more Giddy action, you'll be pleased to know that the sequel, Giddy 2, can be obtained from Reality PD, 3 Manor Road, Taunton, Somerset, TA1 5BB. The cost for that is £2.50.

Undergound, overground, Giddying free, I'll get that cork and bung up a volcano!

A PLEA

We have gone to every effort to make the SuperDisk easy to use and to ensure that all the programs work on as many systems as possible.

We regret that we cannot take any telephone calls concerning SuperDisk problems. They are just too time consuming and then we wouldn't have time to put the next SuperDisk together for you.

If you do have a problem, try the docs again and refer to your manual, should you need to move any libraries or assign any programs. If you are truly stuck, please write to Amiga Answers.

NO SUPERDISK?

Yes, consult your newsagent! But we've had so many complaints about readers not getting disks that we're trying out a new idea. We can't be responsible for what happens at the end of a long chain of different organisations who handle the magazine when it leaves us, especially outside this country. We know that someone appears to be taking disks off copies of the magazine in some countries but we don't know whether they are being stolen or taken off as a protection against a large sales tax having to be paid.

So what we propose is this: if you live in the U.K. you will have to consult your newsagent in the usual way. However, if you are outside the U.K. we want to help you get the advantages of the SuperDisk so if you send us £1 in sterling (International Money Order etc) to cover postage etc and we will send you the month's SuperDisk. Okay?

Faulty Disk?

In the event that your *AUI* Coverdisk fails to load (because of a read/write error etc), please return it to the following address for a free replacement. Allow 28 days for delivery.

AUI Faulty Disks,
Unit 3, Hampton Road Industrial Estate,
Tetbury, Glos. GO8 8LD

There has been an unfortunate mix up at the Post Office, which has failed to forward some previous disks to the new address. If you have had a problem, send them directly to the new address.

Don't forget to include your name and full postal address in BLOCK capticals. Collector's tokens from the back of cereal packets are not required, thank you.

Apology!

We'd like to acknoledge Mr C S J Brady's contribution to last month's SuperDisk, which I'm afraid we failed to do last issue.

Unfortunately, we failed to point out that Mr Brady's program, Epoch_CLI V1.0, was included in the EpochMaster archive. We'd like to apologize for our oversight and thank him in retrospect for allowing us to include this on our SuperDisk.

We know that EpochMaster has been gratefully received by readers and am glad that we were able to include such a complete package on the disk.

Thanks again to all who contributed to that and all our disks.

Documentation

Most of the programs have docs or readme files. These will give more detailed instructions on each program than can be given here. They may also state operating system requirements. We STRONGLY suggest that you read these files.

If you double click on the text file icon, it will load more from the disk and display the doc for you.

Some programs also have AmigaGuide files, which are available for users who have the AmigaGuide capacity on their machines.

You can also load the text files into most word processors.

BBSs

Thanks, as usual, to Simon Gardner of Burning Chrome for his excellent BBS, which you can reach on 0428 727060. Thanks also to Jimbob, the helpful sysop of Walton's Mountain, available on 081 891 5730. Faulty Towers also requires a mention, which is on 0235 535113 as does the Smorgasboard from America, on 0101 205 745 3989.

Compatibility

All the programs on this disk will work on any Amiga with 1 Meg of RAM and Workbench 1.3 or better. "The Shepherd" must have all additional drives removed if you only have 1 Meg.

All the programs, unless stated, have been tested on both Workbench 2 and 3 machines. All work on the AGA machines, but not all of them work on 1.3 machines. Check the docs or test the programs. If they don't work on an older system, the only answer is to upgrade.

If you can't get a program to work then try reading the documentation on the disk carefully. We've tried to make it as easy as possible for you, but if you do become stuck then boot from YOUR Workbench disk (or hard disk) and try to run the program again. If all else fails, good old Andy will be able to help if you write to him at Amiga Answers, but PLEASE don't telephone!

Readers' Contributions

We are always looking for new and original programs to put on our Coverdisk.

If you would like to see your name and program feature in *AUI* then please contact *AUI* at the address given in the front of the magazine. Alternatively, give us a call if you think we would be interested in your program (071 487 1072).

The shorter the better, under 100k including any libraries – unless it's brilliant! Compiled AMOS programs are welcomed.

Shareware

Just a brief reminder that some of the programs on our Coverdisk are Shareware. This means that you can try them out, but if you regularly use them you should send a registration fee to the author. Registration fees are between £5 and £20 and sometimes the author will send you the latest version in return. You can send an International Money Order, or preferably a cheque but many authors don't accept cheques if they are outside the UK. If you want to risk sending cash in a registered post, it's up to you. We wouldn't advise it but it's your money...

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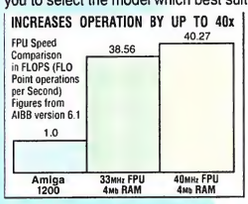

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The switchable Anti-Virus mode stops track 0 viruses infecting the disk while in the drive. Yet, unlike many other drives which have virus killers, this Anti-Virus mode can be disabled, allowing some fussy copy protected software to run.

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As a double sided mechanism, the AmiTek drive gives 880K of disk space after formatting. It is also daisy-chainable, which means that you may add further drives to your system and, uses very little power from your Amiga.

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AUI SuperD

Welcome to the second October 1994 Superdisk. Like SuperDisk 43, this too unpacks to THREE disks of utilities!
David Taylor explains all.

Firstly, This month, more than ever perhaps, we've worked really hard creating a disk that's not only packed with over ONE AND A HALF megabytes of programs, but also that's easier to install than a fuse (electrical that is not bomb!).

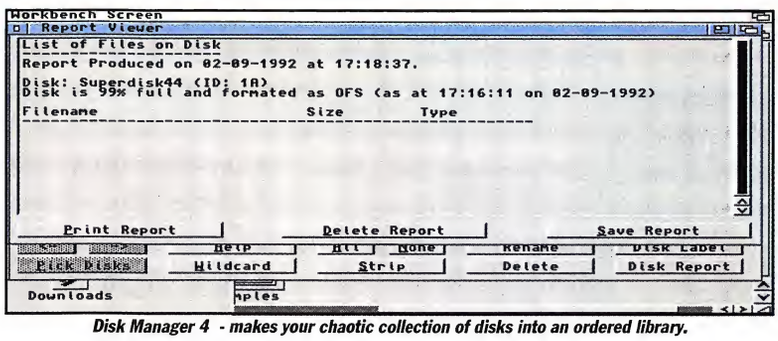
You will need three spare disks. (Maybe some other mags' coverdisks that don't live up to your expectations!) The SuperDisk will do everything necessary automatically, even formatting the disks for you.

All you need to be able to do is answer questions with a 'y' or 'n' and insert a disk. Easy.

You'll be asked which pack you wish to install. Answer "Yes" to the appropriate one and the SuperDisk will do the rest. When you see the message "Installation of ... complete!", the SuperDisk has finished.

This SuperDisk will run on any Amiga with one Megabyte of RAM.

Disk Manager 4



Disk Manager 4 - makes your chaotic collection of disks into an ordered library.

This program will be unpacked to a disk of its own, which will autoboot. Workbench 1.3 users should be aware that they cannot autoboot this program. The program must be accessed via Workbench and libraries may need updating - so ensure you are using a COPY of Workbench.

Disk Manager will compile a catalogue of your disks for you. It will give you information on each disk, including spare space and a list of contents.

When the program is loaded, you simply need to insert your disks and allow Disk Manager to scan the disk. As you do this with each disk in your collection, Disk Manager will build a database, which you can refer to later to find out information about each disk.

It will help you keep a track of where you keep your important files and will even print a customised label that lists the disk contents.

This program is great for everyone who has a growing disk collection. And who hasn't?

The docs explain it all.

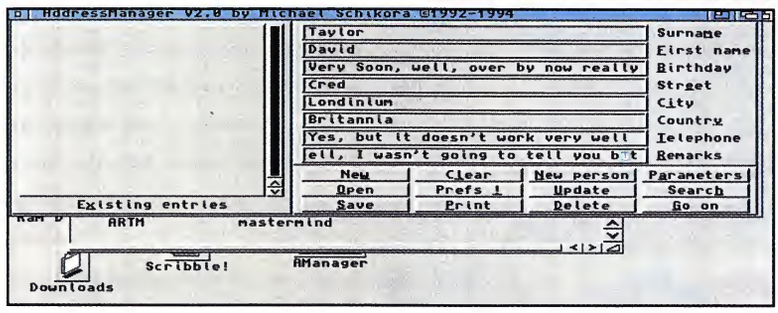
UTILITIES PACK ONE

Address Manager

This useful program, with its attractive user interface *(Phnarr! Phnarr! ED)*, is an easy way to maintain an address book on your desk.

As the name suggests, you simply enter in the details of your friends and acquaintances and then you can look up addresses instantly and you'll never have to scratch around looking for that bit of paper with John's number on again.

Unless you lose the disk, of course! (Backup!)



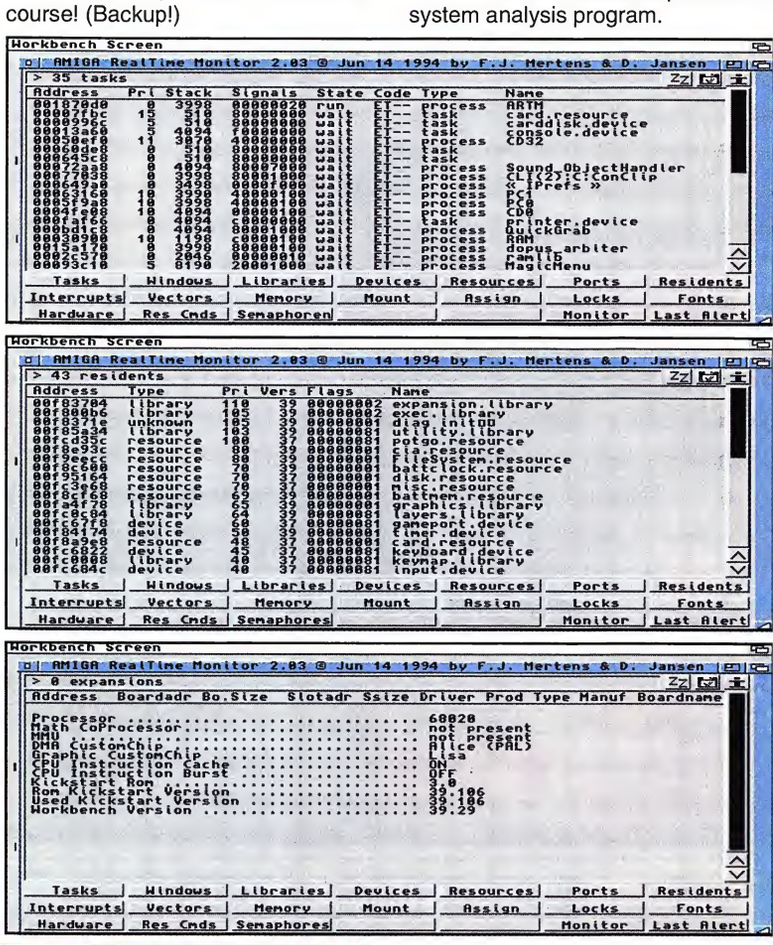
My Amiga has more idea of where my friends live than I do.

PROG

ARTM

The Amiga Real Time Monitor is an excellent utility that will keep its eyes on your system. Not only will it give you info on all your hardware, but it will also show you task priorities, assigns and resident commands.

The ARTM is a comprehensive system analysis program.



A quick check on my system.

MasterMind

Here is a brain game with which everyone should be familiar. Select the colour pegs in an attempt to crack the code.

It can be run from Workbench. Thanks to Neil Strotten for creating this game for ***AUI***. We're sure everyone will enjoy it.

sk No.44

RAMS

PowerCalc

Red. No. Green. Blue? Oh, hang on...

This is on the SuperDisk for all those of you with high end systems (and we know that's quite a few of you). You require a FPU to run this program.

Powercalc will draw 2D graphs and perform mathematical calculations for them.

Read the docs for all the info.

Programming Tips Code

This is code supplied by the ever generous Paul Overaa and ties in with this month's Programming Tips article. See the programming Tips page for an explanation.

SJ

This is a command to be placed in your C directory. See the docs for the format, but in essence, it will split and join files, enabling you to back up large files, such as animations, onto floppy disks.

You can also use it to rejoin later, of course.

Zap 2.44

Zap is a binary editor for the techies out there who'd like one or want to try a replacement.

It does exactly what it claims to do, edit binary!

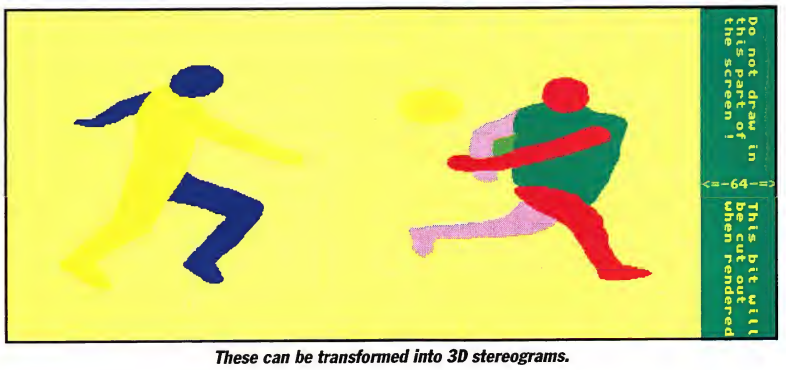
Auto StereoGram

I have to admit that I cannot get my eyes around these stereograms. Try as I might, I can't see anything but a load of dots. Everyone else can, but I'm stumped.

I had to get someone else in the office to check that this program works!

It does though, and will generate 3D pics from IFF images. It can be run from Workbench and comes with some sample pics.

Many thanks to Andrew Chilton for creating this fine program. (I think!)



These can be transformed into 3D stereograms.

Dialling Codes

This type of program seems to be quite popular at the moment. Dialling codes will give you the code for any area or country that you type in, or vice versa. It will also display any time difference so that you don't inadvertantly wake up Auntie Vera in Melbourne.

SnoopDOS

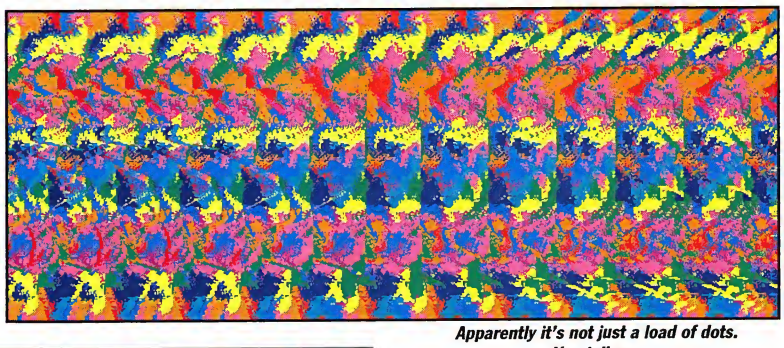
This is an excellent utility that made the creation of the Superdisk possible. It constitutes the first in our series of Toolbox features. See The Amiga Answers NEW 'Toolbox' section for all the details.

MegaJitter

This is a evolution simulation program.

You can define settings and scenarios and then see if your colony prospers or kicks the bucket. As the docs say, there are no miracles here, if your species isn't strong enough, it will snuff it.

This program requires 1.5 Meg of RAM and Workbench 3. If you only have a bare A1200, you will have to run it from the Shell. Interrupt the Startup, by holding down the mouse buttons and then change to the relevant directory. Type MJ and the program will run. See the docs for details and refer to your manuals for more information on Shell.



Apparently it's not just a load of dots. You tell me.

Fast Difference

This command can be placed in your C directory and will display the difference between two text files, enabling you to se any changes that you've made.

It is ideal for writing scripts, like this month's installation script, which underwent nineteen thousand changes. Well, it felt like it.

See the docs for the syntax.

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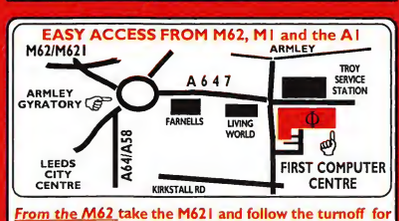

From the M62 take the M621 and follow the turnoff for Leeds/York, A58. This will merge with the Armley gyratory.

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Epson Stylus 800+ mono Cartridge.....£11.99
Star SJ144 mono cartridges (3 pack)...£21.99
Star SJ144 colour cartridges (3 pack)..£21.99

Miscellaneous

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Printer Switch Box 3 way.....£17.99
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5 Metre printer cable.....£8.99
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3 YEAR WARRANTY!!

A500 512k RAM expansion (no clock).£19.99

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A600 1 Mb RAM expansion (with clock).....£39.99

32 BIT RAM (for A4000 etc)

1 Mb SIMM.....£39.99
2 Mb SIMM.....£95.99
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8 Mb SIMM..*NEW LOW PRICE!*.....£269.99

RAM & CUSTOM CHIPS

SPEED	PLCC	PGA
25 Mhz	£45.99	£49.99
33 Mhz	£53.99	£89.99
40 Mhz	£106.99	£129.99
50 Mhz	N/A	£137.99

1 mb by 8/9 SIMMS (1 Mb).....£34.99
4 Mb by 9 SIMMS (4 Mb).....£144.99
1 Mb by 4 DRAMS(1Mb).....£39.99
1 Mb by 4 ZIPS(1/2 Mb).....£32.99
256 by 4 ZIPS.....(each) £5.99
256 by 4 DRAM (DILs).....(each) £5.99
DKB 1202 A1200 RAM board.....£84.99
takes 2 32 bit SIMMs. Has an optional FPU. See above for prices
Kickstart 1.3.....£23.99
Kickstart 2.04.....£28.99
Kickstart 2.05 (for use in A600)...£28.99
Fatter Agnes 8372A.....£26.99
Super Denise.....£18.99
5571-0326 Keyboard controller.£13.99
CIA 8520A I/O controller.....£8.99

AMIGA 1200 RAM

PRIMA CO-PRO & RAM

Realise the full potential of your A1200 with this trapdoor expansion. inc real time clock
1 MB RAM.....£91.99
2 MB RAM.....£129.99
4 MB RAM.....£189.99
8 MB RAM.....£329.99
1 MB & 33 MHz CO PRO.....£139.99
2 MB & 33 MHz CO PRO.....£184.99
4 MB & 33 MHz CO PRO.....£239.99
8 MB & 33 MHz CO PRO.....£379.99
FULL 2 YEAR WARRANTY

SUPRA A500 RAM

Simply the best! Fits onto the side expansion port Auto configures with no software patching.
8Mb pop to 2 Mb.....£175.99
8Mb pop to 4 Mb.....£259.99
8Mb pop to 8 Mb.....£429.99

AMIGA REPAIR CENTRE

We offer a FREE quotation on your Amiga or any peripheral (monitors, printers etc). A delivery tariff of just £5.00 is charged for return delivery or alternatively you can visit our showroom. We can also arrange a courier pickup at an additional cost of £11.00.

All work is carried out by our highly qualified engineers in custom built premises. We will also install any upgrade/software or accessory from your main advert free of charge unless otherwise stated.

All repairs are covered by a 90 day warranty.

Tel. 0532 319444

Miscellaneous Hardware

The Serial Link (Adaptor to link CD32/Amiga/PC) only £29.99
Panavision SX-1 (CD32/1200 emulator.....£219.99
CDS Dataflyer External Hard drive kit.....£64.99
DKB Mega Chip II (2Mb chip RAM).....£169.99
gives 2 Mb of chip memory on A500/A1500/2000
HARD DRIVES from £214.99 (42Mb) for the A500/A500+
Includes standard IDE hard drives, expandable to 8Mb using 1Mb SIMMS. inc. PSU & installation software
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AMIGA 500 Modulator.....£32.99

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Deluxe Paint 4 AGA.....£39.99
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Technosound Turbo.....£18.99
Technosound Turbo 2.....£25.99
Wordworth 2 AGA with Print Mgr & Day To Day Planner.....£39.99
XCopy Pro plus hardware.....£25.99
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Workbench 2.04 software and 2.04 ROM upgrade (complete with manuals) only £49.99

100% RATED!

AMIGA COMPUTING AUGUST 94

The amazing new graphics tablet for the Amiga developed with the help of First Computers. 86% rated in ST Format January issue! Requires 2.04 WB or above

Personal Paint 4 only £19.99 when purchased with a Tabby!

only £59.99

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hand held scanner with 256 greyscales and up to 800 Dpi

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or £139.99 with OCR software

Alfa Data Alfa Colour Scan

18 bit scanner with 256K colours inc colour correction

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With the latest version 4 s/w for bright & sharp grey scale performance. Flexible scanned image display manipulation options, plus Clean up, embolden, resize & flip.

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compatible with Epson ES300C, ES600C, ES800C, GT6000, GT6500 & GT8000

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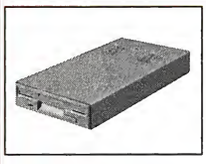
Alpha Data Mega Mouse 90% rating. 290 Dpi..£10.99 or £12.99 for 400 Dpi version
DATALUX CLEAR MOUSE High quality clear 2 button mouse.....£19.99
Zydec Trackball.....£29.99
Aplha Data Trackbail.....£37.99

DISK DRIVES



AMITEC 1 mb 3.5" drive

Features Anti Click, Anti Virus, Sony Mech, 2 year warranty

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1 meg external drive. The best name in disc drives
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hama ON DEMO NOW!

The Professional answer

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S-Video, and composite compatible

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S-Video, and composite mixing, plus far more

hama A-CUT Video Editor £185.99 NEW!

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features professional SVHS output

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Includes dual control for overlay and keyhole effects, extra RGB pass thru. Check for compatibility.

Rendale 8802 FMC..only £164.99

Rocgen Rockey.....only £164.99
For creating special effects in video production with genlocks.

ROMBO PRODUCTS

VIDI 12 Real Time £134.99

Real time colour digitizing from any video source. Full AGA support

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24 bit quality real time colour digitizing from any video source. Full AGA support

NEW LOW PRICES

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Full support for AGA chipset. Colour images captured in less than a second, mono images in real time with any video source. Multitasking s/w, cut & paste.

VIDI 12 Sound & Vision AGA

with built in MegamixMaster **£98.99**

TAKE 2 £35.99

Features include load and save from D. Paint animations and IFF files. Supports HAM graphics.

Megamix Master.....£26.99

8 bit, high spec. sampler. Special effects include echo that can be added in real time, fully multitasking & easy to use.

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68030 accelerator running at 28Mhz expandible to 8 Mb 32 Bit RAM (see RAM prices) Optional SCSI adaptor.

ADDITIONAL RAM FOR VIPER BOARDS

Just add the price of the RAM to the Viper board to get your configuration price

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2 Mb SIMM.....£95.99
4 Mb SIMM...*NEW LOW PRICE!*...£139.99
8 Mb SIMM..*NEW LOW PRICE!*.....£269.99

SUPRA 28 ACCELERATOR

for the A500/A500+& A1500/2000

28 Mhz, uses A500 side port so there is no internal fitting

only £144.99!

PRIMA ROM SHARERS

This high quality ROM sharer features a flexible ribbon connection so that it can be positioned anywhere within your A500 Plus or A600. Full 2 year replacement warranty

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for keyboard switchable version

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QUALITY MOUSE MATS.....£3.99
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20 CAPACITY DISK BOX.....£2.99
40 CAP LOCKABLE DISK BOX.....£3.99
100 CAP LOCKABLE DISK BOX.....£5.49
*90 CAP STACKABLE BANX BOX.....£9.99
*150 CAP STACKABLE POSSO BOX.....£17.99
*add £3.00 delivery if purchasing just one Posso or Banx box. Normal delivery when purchased with other product or when buying 2 or more.
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AMIGA 600 COVER.....£2.99
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AMIGA CONTROL STATIONS
A500 or 1200 VERSION.....£36.99
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All disks are 100% error free guaranteed
New High density 3.5 inch bulk and branded
Please phone for best prices!

QTY	Bulk DS/DD	Branded DS/DD
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30	£12.99	£14.99
50	£20.99	£22.99
100	£37.99	£42.99
200	£69.99	£79.99
500	£168.99	£190.99
1000	£324.99	£365.99

Branded disks come complete with labels
Disk Labels....500.....£6.99
Disk Labels..1000.....£9.99

SOFTWARE

BUSINESS

Maxi Plan 4.....£24.99
Mini Office.....£38.99
Money Matters.....£35.99

CD ROM SOFTWARE NEW!

17 Bit Collection.....£39.99
17 Bit Continuation.....£19.99
Aminet.....£11.99
CD Exchange.....£19.99
Euroscene.....£14.99
Goldfish.....£29.99
Multimedia Toolkit (by Wierd Science).....£22.99
Network CD.....£14.99
Sexual Fantasies.....£34.99

MISCELLANEOUS

Distant Suns 5.....£35.99
XCAD 2000.....£97.99

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Clarity 16 sampler.....£105.99
Deluxe Music Construction Set v2.....£59.99
Pro Midi Interface by Microdeal.....£24.99

Techno Sound Turbo.....£18.99
Techno Sound Turbo 2.....£25.99

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Amos Professional.....£47.99
Amos Professional Compiler.....£24.99
Blitz Basic 2.....£53.99
Devpac 3.....£50.99
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Edword Pro V4.....(PDA005) 1 disk.£1.50
Easy Calc Plus.....(PDA006) 1 disk.£1.50
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Motorola invaders AGA.....(PDA016) 2 disk.£2.25
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9 Fingers Rave Demo.....(PDA033) 2 disk.£2.25
Mean CD Machine.....(PDA036) 3 disk.£2.75
Fit Chix 2.....(PDA034) 2 disk.£2.25
The Mini AGA.....(PDA038) 1 disk.£1.50
CD Wars.....(PDA039) 1 disk.£1.50
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Clipart 1 - MacArt.....(PDAC01) 1 disk.£1.50
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Clipart 3 - MacArt 2.....(PDAC03) 1 disk.£1.50
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CD ROM drivers (Ami).....(PDACD1) 1 disk.£1.50
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Quarterback V6 *NEW!*.....£52.99
Latest version of this Fast & Famous HD backup utility.
Prima A600/1200 Hard Drive setup software. This is the best setup software on the market.....£5.99
Quarterback Tools.....£54.99
Quarterback Tools Deluxe.....£64.99
Xcopy Pro inc. hardware.....£25.99

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Art Department Pro 2.5.....£145.99
Art Department Scanner software.....£114.99
Brilliance II paint and animation.....£59.99
Brilliance Pro. paint and animation.....£149.99
Deluxe Paint 3.....£12.99
Deluxe Paint 4 AGA.....£39.99
Make Path for Vista.....£25.99
Mekon Magic.....£24.99
Real 3D Classic.....£77.99
Scenary Animator V4 (3Mb reqired).....£49.99
Video Creator for CD32.....£31.99
Video Director.....£115.99
Vista Pro 3 (4Mb required).....£45.99

WORD PROCESSING/DTP

Final Copy 2 (UK) *Release 2....NEW LOW PRICE!*....£48.99
built in outline fonts, full graphics import (IFF and HAM), UK thesaurus, spelling checker & much more.
Final Writer DTP....*NEW LOW PRICE!*.....£72.99
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Best selling feature packed word publisher with database
Pagestream 2.2 U.K. version.....£69.99
Pagestream 3 U.K. version.....£249.99
Pagesetter 3.....£42.99
Pro Page V4.....£109.99
Pro Page V4 & Pro Draw 3.....£159.99
Protext 4.3 W/P.....£39.99
Wordworth 2 AGA inc Print Mgr *Special low price!* £29.99
Wordworth 3 *NEW!*.....*LIMITED OFFER!*.....£64.99

Page 16
Electrifyingly Blue?
Computer Mag For Disabled
Pirates Hoard Revealed

Page 17
Amiga Prices Down
Electronic Design Phtokina 1994.
Thumbs Down for Clipper-Chip
A Load of Logical Balls?
Mopic
Right on BT!
Chip Wars

Page 18
Safeguards National ID Systems
Complaints Stats
Quote of the Month
Ham Animals (Disk)
Kodak's Imaging
Dotty 3DCD
Virtuality Deficit

Page 19
Kodak's Imaging
Speedcom
Quotes of the Month
Supra Turbo 28
Atari Not To Go Bust?
Silica Cares
Fake Toner

Page 20
Total Control
Carry On, Computing
Flexidump 3 Addition
CDPD IV
Emerald Mines CD32
VDU Regulations
Chicago Speak

Page 22
Home Pentiums
420 Meg = £249!!!
Dell Tries Kiosks
It's All In The Mind
Boss of the Year?
It's A Videoworld!
Short VDU Guide
Booming Interactive
Enhanced Serial Adaptor Kit

Compiled and edited by Anthony Mael and Martin Witton

Electrifyingly Blue?

The video stores of the world have a lot to thank sex for. (Don't we all?). Video cassettes took off, as everyone really knows, when it was possible in the privacy of the home for soft-core porn to be viewed by the consenting couples and the "swingers" of the world. Now the CD revolution is on the way and it's not surprising that sex is rearing its voluptous, well, body rather than head.

On your Amiga CD 32, if you have the video cartridge - and you are over 18 - you can begin to enjoy, if that's what your taste is, all those delights that made the video casstte a success. Music Machine have brought out the "Sex Model File" which appears, in fact, to be a CD version of one of the famous (infamous?) Electric Blue video series.

The CD, "Rude, nude and occasionally crude" it calls itself, features 12 of the UK's top Page 3 style models in various stages of undress. As you may imagine stocking and suspenders are largely and we do mean largely the preferred costumes when there are any costumes at all.

The girls also talk - if that interests you - about their "experiences" in life love and modelling and it's all apparently photgraphed by a sexy photographer who herself seems to get off on the girls she's shooting. (Eat your heart out David Dalby!)

Next month some lucky (!) reviewer is going to have to spend hours going through the whole thing and rating it. According to the Music machine who are bringing this, and they tell us, others in the Electric Blue series to our Amiga screens, all the girls are "perfect 10s". We're going to have to examine them closely to see if we agree. Hard life, eh?

We need to get to the bottom of this CD.

These are Amiga specific buttons, we think . . .

Computer Mag For Disabled

East Midlands Shape, a regional arts development agency, is offering an innovative and free magazine for and by disabled people. Many people with disabilities now have access to computers and this publication offers them an opportunity to exhibit their work.

The company is seeking original material for "The Ink Shed", such as graphics, short stories or poems. The work should be submitted as black and white print-outs with full page layouts ready for photocopying.

Contact: The Ink Shed, c/o East Midlands shape Ltd., The Roadmender, 1 Lady's Lane, Northampton, NN1 3AH. Tel: 0604 233277.

Pirates Hoard Revealed

Investigators with the crime unit of ELSPA (European Leisure Software Publishers Association), which represents the computer and video games industry, together with officers from the Greater Manchester Police Obscene Publications Department, have raided two Manchester addresses and seized in excess of 200 CD-ROM discs and CD-ROM writing equipment.

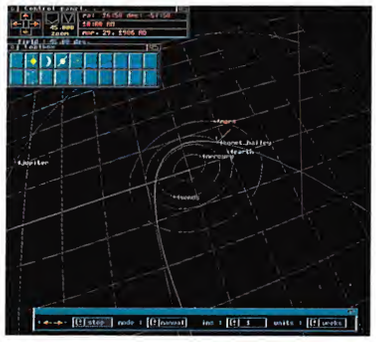
The software had an estimated street value of £500,000. It allegedly contained pirated commercial software and obscene computerised images that are being analysed by the Manchester Police. ("Let's analyse this image of this man and woman. What do you think they are doing, PC Plonk?") The raid follows warnings issued earlier by ELSPA that the UK is set to be flooded by illegal CD-ROMs.

AMIGA PRICES DOWN

Meridian Software have announced new pricing for selected products.

The products include: VistaPro 3 £29.95; Vistalite £29.95; Distant Suns V5.0 £27.95; Makepath £9.95; Terraform £9.95. Bundle Deal 1 RRP £69.95 (includes Vista Pro 3 or Vistalite, Distant Suns V5.0, Makepath and TerraForm.) Bundle Deal 2 RRP £49.95 (includes VistaPro 3.0 or Vistalite, Makepath and Terraform). All are fully boxed.

Also available is Brilliance 2.0 (Dongle free) £39.95, Imagine 3.0 upgrade £89.95 (upgrade from cover disk or competitive product), X-Cad 2000 £29.95 - full product special edition, Essence 3.0 Vol 1 + Forge £79.95, Essence 3.0 Vol 2 + Forge £79.95.



Distant Suns' set on Amiga price.s

Contact: Meridian Software Distribution Ltd., East House, East Road Industrial Estate, East Road, London SW19 1AR. Tel: 081 543 3500.

CD32 GOING GREY

There are reports that Amiga CD 32s were dumped on the German makert immediately before the closure of Commodore Germany. According to sources close to the German Commodore operation the closure of CBm there was carried out on the instructions of the Bahamian Court appointed trustees who, not surprisingly, couldn't run the business properly and so shut it down. "Another verdammt nail in the Commodore coffin." Commented a German source.

However, there appears to have been an effort to grab as much cash as they could before the closure by selling off 20,000 or so Amiga CD 32s they had in stock at prices between £60 to £80 a throw.

As you may imagine they were snapped up pretty quickly. Some were even offered to sellers in the UK. However, a source close to Commodore UK told us that that potential buyers should beware. These possible "grey imports" are fraught with problems because there appears to be no likelihood that any CBM UK appointed warranty repair company will provide any guarantee for them. And with CBM Germany now history, anyone who buys them could be left out on a limb, and not a very safe one, if anything goes wrong even right at the start.

So if someone sidles up to you and in an unusual accent whispers "Doo you vant a cheep cheep Amika Seetee tsvai und dreisich, Kamerad?" You might be advised to refer him to a Commodore company still functioning and based in Maidenhead. We're sure they would like to ask him some kvestions.

A Load of Logical Balls?

If you want to run your mouse over your tribal loyalty.

The Logic Shop have come to what they consider is a logical conclusion (well, they would, wouldn't they?) that their new range of mouse mats will "Bring everyone to their knees". The top football clubs, they say, have put their names to this venture which will "More than match their expectations". (Their words not ours! OUR expectations of anything to do with soccer are pretty low!) Well anything for publicity. Perhaps beer mats would have been more appropriate.

Contact: The Logic shop, 5 Lynton Parade, Cheshunt, Herts, EN8 8LF. Tel: 0992 25323.

ELECTRONIC DESIGN PHOTOKINA 1994

Electronic Design have announced that modular Desktop-Video is to be presented for the first time by a partnership of companies at the Photokina Show September 22 - 27 1994 in Cologne. The aim of this stand, say Electronic Design, is to help bring more clarity into the existing information chaos as specialists for each different Desktop Video problems will present their latest products. As each product gives a solution to a specific problem, all products are compatible with each other. The integration of different Amiga solutions will be shown to the public in hall 14.2 booth E/F 28. See you there?

THUMBS DOWN FOR CLIPPER-CHIP

The Clinton Administration has backed away from plans to use the Clipper chip - a microprocessor that was to have been installed in encryption devices to enable the US Government to decipher coded computer transmissions over the fast growing Internet. There has been massive opposition throughout the Internet community at the idea of the US Government being able to bug any communication.

But the US Government will try to accomplish the same ends by different means. Any alternative would, according to Al Gore, the US VP, like the Clipper to have a key feature that would allow the Goverment to use special numerical keys to decode transmissions from an encryption device. One suggested concession though is that the keys could be stored at private businesses, rather than two Government agencies as envisioned in the Clipper plan. That is intended to calm fears that exports of US communications programs would suffer because buyers would think that Washington might tap into them at will. And would they? Ever heard of the CIA and FBI? (Or MI5 and 6 come to that.)

MoBIC

A project supported by the European Commission under the TIDE (Technology Initiative for Disabled and Elderly persons) Programme, the MoBIC (Mobility of Blind and Elderly People Interacting with Computers) project aims to increase the independent mobility of visually disable and elderly people by developing an orientation and navigation aid based on technology emerging for non-disabled travellers. One outcome of the project is hoped to be a detailed specification of user requirements which will be device independent. Even on well known routes, blind travellers find that changes in landmarks, or new obstacles may cause disorientation or necessitate a new route.

Access to information is often overlooked in attempting to assist visually disabled people. The MoBIC system will make materials such as guidebooks, public transport timetables, maps and advertisements for services available electronically for blind people.

Contact: The MoBIC Project, RNIB, 224 Great Portland Street, London W1N 6AA.

CHIP WARS

Hewlett-Packard is using its 100MHz PA-RISC chip as a vehicle to attempt to crush Silicon Graphics (SGI).

The PA-7100LC/100 chip, say HP, incorporates multimedia features to provide VCR-like digital video and CD audio. HP also claims that the system can give a realistic display of up to six participants in a video conferencing call. (All talking at the same time?)

One of the target markets is CAD/CAM where SGI has a strong prescence. HP also criticised SGI's MIPS architecture for its lack of floating point handling. OK, Giants, Squabble among yourselves.

BT RIGHT ON BT! BT

British Telecom is talking about providing direct Internet connection. This is only to be expected. It is estimated that two people join the Internet every second, every hour, every day and you wouldn't expect BT to miss out on this market (Someone should tell BT that it's two per second worldwide though).

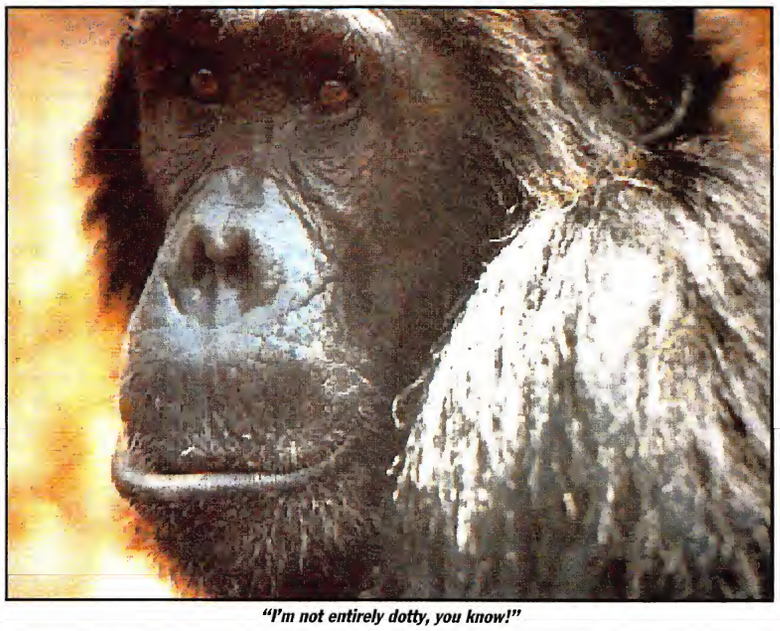
QUOTE OF THE MONTH

"The PC is a Darwinian device, it is the ultimate machine because it has adapted and evolved from a typewriter to a graphical tool of the modern enterprise."

Andrew Grove, President, Intel Corporation

It is well-known fact that the Editor of ***AUI*** loathes the word "Ultimate". The reason he says is that it only means "the last" but up to now; not what most people these days seen to mean when they use it - the top, the best.

The PC is NOT the "ultimate" in the development of computers any more than we can be sure that the human being, as of now, is the "ultimate" primate. The whole idea is another of the delusions of grandeur that afflicts the PC (i.e. the MSDOS/Windows) community. And especially, it seems, the boss of Intel who produce 90% of the chips that go into those machines. But "ultimate"? Not even Intel may be around if Darwinian rules are followed. For in more fundamentalist Biblical language "Pride comes before a fall."



"I'm not entirely dotty, you know!"

DOTTY 3DCD

Phosphor Dot productions has brought out a 3DCD collection of 3D objects, brushmaps, animations and rendered pictures on CD-ROM for use on the Amiga.

3DCD, they told ***AUI,*** will contain objects in a variety of different formats including Imagine, LightWave and 3D Studio (fot the Amiga?) Where desirable objects or groups of objects will be set up in scenes to make their use even simpler.

Readers interested in seeing their own work on CD-ROM are invited to contact the company with a view to putting their objects or animations on the disks.

Contact: Phosphor Dot Productions, Suite 3, No. 1 Norfolk Road, Cliftonville, Margate, Kent. CT9 2HU. Tel: 0843 292150.

COMPLAINTS STATS

Last year, 78% of the 2889 complaints received by the UK Data Protection Registrar were related to the use of data by private sector organisations, the majority of these concerning the finance industry. These figures also show that the number of complaints, although boosted by a television advertising campaign in the previous year to 4590, had not fallen back to the levels prior to the campaign (1747 for the year 1992/3).

In the private sector the greatest number of complaints were received about the Child Support Agency. The majority were from absent partners or in some cases their new partners (unwilling no doubt to accept financial responsibility for other people's children) and concerned at the disclosure of information by employers, and misidentification of individuals.

So far as we can discover not one single complaint was concerned with any information held on an Amiga. (All information from anyone that enters the ***AUI*** offices is immediately destroyed - or at least no one can find it when we want it.)

SAFEGUARDS FOR NATIONAL ID SYSTEMS?

"If pressures continue for a national identification system there should be a careful evaluation of any benefits which might flow from such a system and weighing of these against the undoubted risks to privacy and personal freedom", Eric Howe, the Data Protection Registraar commented. "The issue is too fundamental for the United Kingdom to allow itself simply to slip into having a *de facto* national identification system without the necessary restrictions and safeguards".

He also expressed concern that a number of current and proposed public identification systems created for specific purposes may in effect become widespread national identifiers - for example driving licences bearing the holder's photograph, social security 'swipe cards' and National Insurance and National Health Service numbers.

The UK Government is saying that it has been required by the European Union rules to make the driving licences contain a photo and are going to carry out a "consultation" on the matter. (Though if this Government's record on taking any notice of what the public tell them in consultations continues the whole thing will be waste of time and money.)

The British have traditionally resisted the idea of identity cards when all other European countries have had them for years.

Is that just another sign of the oddly British obsession with secrecy about so many things or is there a genuine fear that the Authorities would misuse the information? Tell the Government what YOU think!

VIRTUALITY DEFICIT

Virtuality, once known as W Industries and founded on Amiga technology, the designer and manufacturer of virtual reality computer games which floated on the Stock Market in October, is planning to treble its development spending this year "to take advantage of the potential home market."

However, there is concern that the increased investment would mean continued losses for the company which announced a pre-tax loss of £365,000 for the year to end of December 1993.

Virtuality is currently negotiating potential partnerships with the main home games manufacturers Nintendo, Sega and Sony. But they have already fixed up a deal with IBM who are going to market their systems to businesses, they say. So if you walk into a company and no-one takes any notice of you because they have got their heads wrapped in VR geadsets, you can blame the Amiga, Well, almost...

HAM ANIMALS

Digitalized ham images of a variety of animals have been produced for the Amiga by John Leaver. He is also offering disks of many animals in either mixed form *(see pic)* or con-taining single animal images. He has produced about 20 disks and is looking to extend the range to famous buildings and plants.

The disks contain between 7

KODAK'S IMAGING

Kodak, best known for its traditional camera film is moving into the wonderful world of elevtronics. It's announced it is forming a separate worldwide unit for digital imaging.

The unit will initially comprise several Kodak businesses - applied imaging, CD imaging, printer products and the company's equipment and software platform centre.

Although most of Kodak's business comes from traditional films, the company has said it's aware that this could be superceeded by the rapidly growing market for digital electronic imaging. Kodak is a significant force in electronic imaging - for example the Photo CD system with forthcoming compatibility with Amiga CD machines.

SPEEDCOM

Hear the call of the Siren over the 'net?

Siren Software have told *AUI* that they are now supplying the Speedcom range of modems. All these modems include RS232 cable, UK power supply, UK telephone cable,full instructions, a getting started guide and 12 month's warranty.

There are three models in the range, the Speedcom+B priced at £139.99 which operates at speeds up to 14,400bps (V.32bis), the Speedcom+Et priced at £179.99 which has a maximum speed of 19,200bps (V.32 terbo) and the Speedcom+Bf priced at £229.99 which has a top speed of 28,800bps (V.fast). All prices include VAT.

Contact: Siren Software, Wilton house, Bury Road, Radcliffe, Manchester M26 9UR. Tel: 061 724 7572.

Quotes Of the Month

Robert Devereux, the top boss of Virgin Interactive Entertainment says

"We very rarely develop anything for less than a seven figure sum. We've got £25m of product in development at the moment. You can make half a dozen mid priced movies for that".

We've been predicting for a long time that only the big fish of the games business will survive. Long gone are the days when a game could be created by someone working alone in his spare time and selling from the classified ads.

Richard Branson sold his Virgin Music for £500,000,000 plus at the right time. The big buzzword is multimedia and the costs multimillion bucks too these days. Perhaps he got into computer entertainment at the right time too.

SUPRA TURBO 28

We've heard that Supra are selling The SupraTurbo, an accelerator card that is designed for the A500 and the A2000. (It's a bit late, isn;t it?)

Consisting of a 86HC000 chip clocked at 28MHz, the SupraTurbo has a 16K memory cache which is how the accelerator gets its speed. The A500 version of the accelerator plugs into the 86pin expansion port and can be turned off and on while in a program. Software is provided to show the on/off state of the board.

The board inside is, we understand, identical to the A2000 board and can be fitted to an A2000 if the Supra's casing is removed.

Check with good hardware suppliers for prices and availability.

ATARI NOT TO GO BUST?

Atari has admitted that it does not expect to be profitable in 1994 but denies it it on the verge of bankruptcy with the chief financial officer, August Liguori, defending the company's financial position. Reports on US TV channel CNBC said that Atari had no earnings and no chance of making any money.

Atari's Jaguars are still in very short supply in the UK but the company is relaunching its hand held console, the Lynx at £49.99 down £20.00 on the original price. £49.99? It was £250, wasn't it when it was launched? And based on Amiga-style technology created by two of the Amiga originials R.J.Mical and Dale Luck! (Who are now working on 3D0. Will that be equally successful?)

Atari promises to have 12 software titles for the Jaguar on sale in the UK by the Autumn including Wolfenstein 3D. It says there will be a minimum of 30 titles by Christmas. But will there be that many Jaguars on sale? It is alleged that Atari that is so short of cash that they are making distributors pay up front so that they can keep going. Bankruptcy? As in everything else Commodore - at least the parent company - got there first.

SILICA CARES

Silica claims it is the only computer retail and mail order company in Britain to offer a comprehensive extended warranty on its products including games consoles, with the launch of 'SilicaCare'.

The SilicaCare service plan provides repair and replacement of parts, including major items like hard drives and monitor tubes, for a single component or whole computer system. The extended warranty has been designed to be flexible so a service package can, Silica told ***AUI,*** be tailored to the user's requirements.

Contact: Silica, 1-4 The Mews, Hatherley Road, Sidcup, Kent DA14 4DX. Tel: 081 309 1111.

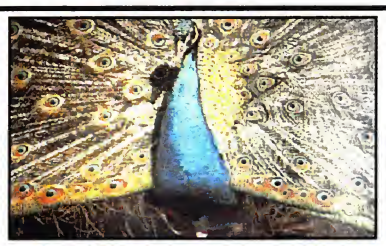
FAKE TONER

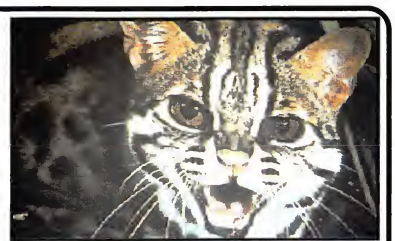
As they say in Court "Acting on information received" Hewlett-Packard has located a store of counterfeit printer toner cartridges in a warehouse on an industrial estate in London. (Honest, Guv, I don't know how they got there!)

The Southwark Trading Standards Office were informed and found a total of 67 pallets containing 3,413 toner cartridges. In addition there were various component parts of the packaging including fake copies of instruction leaflets,(Do not RTFM!) copies of labels and boxes and polystyrene packaging ends (Fake ones?) as well as remanufactured cartridges.

Well, you can't trust nobody nowhow these days. Even the printing ink used in this magazine might be fake. If the Fuzz knock at our door we always eat the printouts - that's why our printers only use fake rice paper.

The ham with these animals isn't edible.

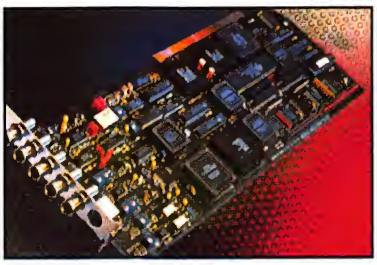




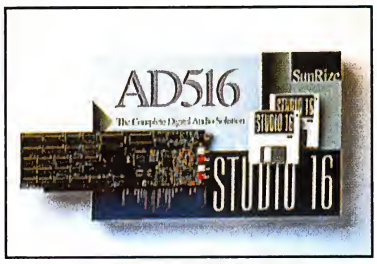
nd 12 images and cost £3.50 each clusive of post and packing.

ontact: John Leaver,
9 Ibsley Gardens,
ondon SW15 4LX.
el: 081 785 4923

TOTAL CONTROL



Par Board bundled it..



... with goodies like Studio 16

The DPS Personal Animation Recorder, recently reviewed in ***AUI***, permits the recording and real time playback of computer animation sequences directly from a hard drive. The card plugs into an Amiga expansion slot and replaces both the record VCR and the single frame controller. For those who don't remember every word of Barry McCarthy's review, a dedicated hard drive and component digital recording techniques are used for recording and real time playback of full resolution animation sequences. Bad edits, missed frames, dropouts and other mechanical glitches common to traditional VCrs can be a thing of the past, according to Digital. When used in combination with a DPS AD3000 Video capture card, the DPS Personal Animation Recorder can perform real-time video capture for rotoscoping, time lapse recording and other special effects. AD3000 operational features include full proc amp complexity and hard drive size, but six to nine minutes is typical for a 1 GB hard drive.

So DPS have come up with a package which combines the PAR board with some, as DPS see it, ideally compatible other products.

One is Studio 16 3.0/AD516, an eight track audio recording studio into the Amiga. The "time-life" (isn't that a magazine company?) interface allows playback of music, narration, video tracks and sound effects from the Amiga's hard drive. Sync to the Personal Animation Recorder via an internal SMPTE timecode transfer.

Another product in the package is, unsurprisingly, the highly desirable LightWave 3D which by now an Amiga user should know is a 3D graphics and animation graphics package through a powerful rendering engine, capable of 16.8 million colour, ultra high resolution output and fast rendering times. With lens flares, anti-aliasing, full ray tracing, motion blur and depth of field effects - and it will even make you morning coffee and take out your girl friend when you are too busy making a documentary of your hols in Greece. For all these lovely item, if your pocket is full of loose change:.

Contact: Digital Processing Systems, Riverside Business Park, Unit 2, Dogflud Way, Farnham, Surrey GU9 7SS. Tel: 0252 718300.

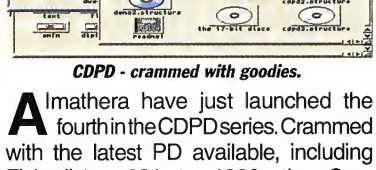
FLEXIDUMP 3 Addition

A new feature has been added to Flexidump 3, according to Care Electronics, that will remove banding and white lines from all dot matrix and bubble jet printers.(Hooray!) The results can, they claim, transform a 9 pin dot matrix to compare to that printed on Deskjet printers.(Goodbye HP!)

The ribbon life is extended and print quality is consistent over the life of the ribbon, they say. This new feature, termed "shingling" (We thought that was something you got instead of Chicken Pox.) is in addition to dithering and anti aliasing modes and can be set at different levels to suit the user. Upgrade is available for those users of Flixidump 3 without "shingling"(Ouch!) free of charge, or for earlier versions for £14.95.

Contact: Care Electronics. Tel: 0923 894064.

CDPD IV



CDPD - crammed with goodies.

Almathera have just launched the fourth in the CDPD series. Crammed with the latest PD available, including Fish disks 891 to 1000, the Gnu C/C++ compiler (with Amiga 3.0. Includes licenced from Commodore), and a networking support for CD32 serial interface users, as well as Parnet for SX-1 or CDTV users, including Video Creator network support.

CDPD IV also contains the exclusive AM/FM Music Magazine disc collection, plus all the AM/FM special and pro-sample discs. Compatible with CDTV, Amiga CD-ROM, A570, CD32 (Paravision SX-1 expansion or serial adaptor recommended).

RRP £19.95 from Almathera on 081 687 0040.

Carry On, Computing

An education into the growing emergence of portable communications is th selling point of The WorldPort Guide to Portable Computer Communicatior from US Robotics (Sounds like an SF company, doesn't it?)

The publication, they told ***AUI***, includes the options, the equipmer needed as well as things to consider of all aspects of data communications fo professionals on the move. Whether you are occasionally away from your offic or "field based", (In a tent?) the Guide will look at options available and th equipment required to suit your application needs, according to US Robotic (Our need is a portable Amiga!)

Ring 0800 225252 for a free copy of the guide.

Contact: US Robotics, 224 Berwick Ave, Slough, Berkshire SL1 4QT. Tel: 0753 811191.

EMERALD MINES CD32

Almathera is digging up ancient jewels.

Recently released from Almathera comes the CD32 edition of the classic Amiga game Emerald Mines as an enhanced CD32 budget title. Can you collect the emeralds, defy the brain taxing obstacles and reach the exit before the time runs out? Yes, of course you can! But only with the enhanced CD32 version containing over 10,000 levels - the equivalent of 120 floppy disks can you choose your favourite graphics and sound for each set of levels.

For all ages from 5+ and one or two players. For the Amiga CD32, Amiga CDTV, A570 CD-ROM etc.

Contact: Almathera £14.95. Almathera Systems Ltd., Southerton House, Boundary business Court, 92-94 Church Road, Mitcham surrey CR4 3TD. Tel: 081 687 0040.

VDU REGULATIONS

Are employers doing too much o too little to comply with Healt and Safety regulations? The HSI believes that many employers still d not realise what they are supposed t do while others may have been misle by suppliers promoting services an products into doing too much.

To help employers decid quicly and easily if they are comply ing the HSE has issued a free leafle which advises on risk assessment an the regulations which apply.

'VDU Regulations: Do the Apply to Your Company' is availabl free from HSE Books, PO Box 1999 Sudbury, Suffolk CO10 6FS. Tel: 078 881165. Copies of the guide 'VDUs An Easy Guide to the Regulations' ar available for £5.00 from HSE Books o Dillons bookstores.

NOTEBOOKED JUDGES

Siemens-Nixdorf has won a contract to supply up to 300 judges with colour notebook computers and portable printers. Judges on the move will access the Lord Chancellor's departmental Email using PCMCIA modem cards.

"Still using the Atari ST, you are a danger to society, And I sentence you to three years hard drive.."

CHICAGO SPEAK

More details about Microsoft's Chicago operating system - the next stage Windows (which was begat by MSDOS) have emerged with the news tha it will use speech compression technology from the DSP Group. Capable transmission and processing of speech, Truespeech is intended to boo Chicago's multimedia appeal for developers and end users. The next stage the Amiga O/S had better be a good one to compete.

GVP WORLD CLASS AMIGA PERIPHERALS

NEW! PRODUCTS & NEW LOW PRICES

G-LOCK VIDEO GENLOCK FOR ALL AMIGAS

This extremely high quality Amiga genlock, from GVP, has an intuition-based software control panel with full ARexx and command line interfaces. It is easy to use and supports most VHS and S-VHS video models. For crisp overlays of scrolling, or static titles, graphics over live video and recording to videotape with high quality results.

94%

VIDEO: G-Lock's six video control panels enable you to perform a wide array of special effects on still or motion video including:
- Colorizing for unique visual effects.
- Creating your own "Classic" black & white videos using the Colorkill feature
- Colour filter effects
- High-quality keying effects with bitplane or chroma keying
- Manual or automatic (ARexx triggered) fades and cuts

AUDIO: G-Lock's dual-input audio panel switches, mixes and shapes sound for effects such as:
- Combining stereo channels or separate inputs without a "Y" adaptor
- Treble and bass equalization
- Plus, add DSS8+, see below, or any Amiga created/ modified digital audio samples to your final mix

- *Simple, Intuitive Mouse-Driven Software Control Panels. Full ARexx, CLI and Workbench Interfaces*
- *Software Selection of 2 Composite Video Inputs or 1 Y/C (S-Video) Input*
- *Simultaneous Composite & S-Video and RGB Outputs*
- *Software Selection or Mixing of 2 Audio Inputs with Volume, Bass and Treble Control*
- *Software-Driven Video Processing Amplifier Offering Complete Real-Time Signal Processing Control, Including Hue, Brightness and Saturation.*
- *Software-Controlled RGB Colour Splitter Compatible with Video Digitizers*
- *Built-in Transcoder Converts Input Video to Composite, Y/C, RGB or YUV Outputs*
- *Full ECS/AGA Support for Full Compatibility with A1200 and A4000 Systems*
- *Compatible with Popular Titling Software like AmigaVision™, Scala-Multimedia 200/210/300™ and Gold Disk's Video Director™*
- *Full Audio Support*

G-LOCK
~~£299~~
£269
INCLUDING VAT - VID 2500

A1230-II 40MHz & 50MHz ACCELERATORS FOR AMIGA 1200

The new GVP A1230-II advanced accelerators are available in 40MHz 68030EC and 50MHz 68030 configurations. They can make your Amiga run at least 6½ times (40MHz version) or at least 8¼ times (50MHz version) faster than the standard A1200 and feature unique warranty safe module expandability - see right.

MMU OR FPU?
The 50MHz version includes a built-in Memory Management Module (MMU), for more sophisticated memory control. An optional FPU (Floating Point Unit: for faster maths calculations) is available for the 40MHz and 50MHz versions (see below), both have RAM upgrade options (up to 32Mb, see right).

- *40MHz 68030EC and 50MHz 68030 Accelerator*
- *Unique Feature Connector for Module Expansion*
- *Memory Management Unit on 50MHz Version*
- *Optional 60ns 32Mb RAM Upgrade*
- *Battery Backed Clock*
- *Optional 40MHz or 50MHz 68882 Maths Co-Processor*
- *Memory Management and Cache Control Software*
- *Kickstart Remapping Technology*

RAM UPGRADES
The A1230-II accelerator combo has two 32-bit SIMM sockets for easy Fast RAM expansion. The following SIMMs can be used in those slots.
- 1Mb 60ns Fast RAM SIMM - (RAM 3216) - £69 inc VAT
- 4Mb 60ns Fast RAM SIMM - (RAM 3246) - £199 inc VAT
- 16Mb 60ns Fast RAM SIMM - (RAM 3286) - £999 inc VAT

SCSI-II EXPANSION MODULE
- *A1291 - Fastest SCSI Controller Yet*
- *DMA SCSI Design • FaaaST ROM Controller*
- *High Speed, Unique DPRC Technology for Direct HD to Memory Transfer*

£59 inc VAT - UPG 1600

A1230-II ACCELERATOR

NEW LOW PRICES	0Mb RAM	1Mb RAM	4Mb RAM	4Mb RAM + FPU	8Mb RAM
40MHz 68030EC NO MMU	£229 inc VAT - UPG 1240	£249 inc VAT - UPG 1241	£429 inc VAT - UPG 1244	£529 inc VAT - UPG 1246	£629 inc VAT - UPG 1248
50MHz 68030 WITH MMU	£299 inc VAT - UPG 1500	£329 inc VAT - UPG 1510	£499 inc VAT - UPG 1540	£599 inc VAT - UPG 1545	£699 inc VAT - UPG 1580

EGS SPECTRUM 24-BIT GRAPHICS CARD FOR A1500/A2000/A3000/A4000

TAKES YOUR AMIGA BEYOND AGA!

EGS Spectrum is the answer to all your 24-bit graphics card requirements. It is a high performance, high resolution, 24-bit board that will take any Amiga 1500, 2000, 3000 or 4000 beyond AGA! But the hardware is only half of the picture. Without quality software, your investment will be wasted. Not only does GVP's own award winning graphics application ImageFX fully support EGS Spectrum, but also, using a Workbench driver, nearly all existing Amiga Workbench compatible applications will also work on and support the EGS Spectrum system.

- *2Mb of On-Board Memory*
  2Mb gives higher resolutions & more colours (1600 x 1280)
- *Programmable Resolutions Up To an Amazing 1600 x 1280 - 800 x 600 in 24-bit*
- *Real-Time 24-bit Display and Graphics Operating System!*
- *High-Performance 24-bit EGS-Paint Package for Professional Painting and Photographic Editing*
- *Amiga-RGB Pass-Through so the Amiga and the EGS SPECTRUM can Share a Single Monitor*
- *Zorro II (16-bit) and Zorro-III (32-bit) AutoSensing for Maximum Performance*
- *Scan Rates Up To 80KHz*
- *80,000,000 Pixels/sec Pixel Display Speed (8-bit)*
- *Workbench driver to run Workbench directly on the EGS SPECTRUM Board, Freeing Up Valuable Chip RAM*
- *Hardware Blitter to Accelerate All GUI Operations, Including the Workbench Driver*
- *System Conforming Applications Can Use the EGS Screenmodes Directly from the Display Database*
- *EGS Requires Kickstart 2.04 or Higher*

2Mb VIDEO RAM
~~£399~~
£349
INCLUDING VAT - VID 7320

G-FORCE 040 40MHz ACCELERATORS FOR A3000/A4000

MAKE YOUR AMIGA THE FASTEST IN THE WORLD!

Never before has such a powerful processor been available for the Amiga! The G-Force 040 puts a 40MHz Motorola 040, plus built-in 40MHz 68882 FPU into your A4000 (030 or 040) and couples it with up to 32Mb of super fast 32-bit SIMM memory on the board. The Standard board comes with 4Mb RAM - see left for RAM upgrades.

To further increase memory from the maximum 32Mb available on the G-Force 040 card, add one of the two 96Mb memory expansion boards available - see left. These enable you to take your total memory up to an amazing 128Mb RAM, directly connected to this blazing processor.

For maximum performance, a second optional module will be available soon, for a full 32-bit SCSI2*FAST* interface, capable of data transfer speeds up to an amazing 10Mb per second!

RAM UPGRADES
The standard board has two GVP 32-bit SIMM sockets, one of which is populated with a 4Mb 60ns SIMM. Available options are:
- 8Mb Add 1 x 4Mb SIMM - (RAM 3246) - £199 inc VAT
- 20Mb Add 1 x 16Mb SIMM - (RAM 3286) - £999 inc VAT
- 32Mb Remove 1 x 4Mb SIMM and Add 2 x 16Mb SIMMs - (2 x RAM 3286) - £1998 inc VAT

RAM BOARD UPGRADES
These optional cards have six GVP SIMM sockets to go up to an extra 96Mb. Add that to the maximum 32Mb on the board for a total maximum RAM of 128Mb.

G-FORCE 040 96Mb RAM BOARDS

4Mb POPULATED	£399 INC VAT - UPG 0874	16Mb POPULATED	£1199 INC VAT - UPG 0896

- *Fast 040 Accelerator + RAM for A3000/A4000*
- *40MHz 68040 Processor*
- *40MHz 68882 FPU Built-in to the 68040 Chip*
- *Make your A4000/030 at least 12 Times Quicker*
- *4Mb RAM Fitted, Expandable to 32Mb on the Board, to a Total of 128Mb via an Extra Card - see left*
- *SCSI-II Fast Optional (Pricing TBC)*

G-FORCE 040
40MHz 4Mb RAM
£999
INCLUDING VAT - UPG 0840

8-BIT SOUND SAMPLER FOR ALL AMIGAS

Capture sound from an external source and play it back in stereo or mono on your Amiga. The latest version of GVP's Digital Sound Studio (DSS8+) enables you to create audio effects for use in games or jingles.

- *New Style High Impact, Clear Poly-Carbonate Casing*
- *Simultaneously Holds up to 31 Sound Samples in Memory*
- *Real-time Oscilloscope, Spectrum Analysis, Echo & Reverberation*
- *AREXX Compatible*
- *Microphone Input*
- *.MOD File & MIDI Compatible*
- *FREE Samples Disk*

DSS8+
~~£69~~
£49
INCLUDING VAT - MUS 2510

VIDEO EFFECTS FOR ALL AMIGAS WITH 3Mb RAM

CineMorph from GVP opens up the world of Morphing, the process of converting one image to another to create dazzling special effects. Currently very popular in music videos and feature films, morphing has become the fashionable video effect to use. Now with CineMorph you can create these stunning effects on your Amiga.

- *Supports the AGA Chipset*
- *Static or Full Motion Morphing*
- *Single Image Warping*
- *Fast Render Times*
- *Renders to HAM-E and DCTV*

CINEMORPH
~~£24~~
£19
INCLUDING VAT - ASC 4422

IMAGE PROCESSING FOR ALL AMIGAS WITH 4Mb RAM

Image FX is a complete solution for all your image creation and editing needs. It has a vast range of facilities, can read and write to many other different file formats and directly controls a wide variety of hardware.

92%

- *24-bit Painting*
- *ARexx Compatible*
- *Virtual Memory Support*
- *Load, Save and Convert to the Following Formats: ANIM, BMP, Clipboard, DCTV, DPIE, GIF, HAM-E, ILBM, IMPULSE, JPEG, RENDITION, SCULPT, TARGA, TIFF AND MORE*
- *Scanning, Framegrabbing & 24-bit Board Support Comes with Modules for Several Hardware Devices: JX100, IV24, AGA/AA Chipset*
- *Create Animations*
- *Numerous Special Effects Edge Feathering, Shading, Alpha Channel, Morphing, Compositing etc*

CINEMORPH INCLUDED!
SEE DETAILS LEFT

IMAGE F/X
~~£189~~
£179
INCLUDING VAT - ASI 2002

ACCELERATORS FOR AMIGA 1500 & 2000

FAST! 32-bit TECHNOLOGY

GVP offer a range of accelerators for the A1500/A2000 that outstrip the competition for speed and specifications.

G-FORCE ACCELERATORS	030 40MHz	040 33MHz
Speed MIPS*	12.1	30
Processor	68030EC	68040
Maths Co-Pro.	68882 included	68882 in 68040 processor
Std 32-bit RAM	4Mb	4Mb
Max 32-bit RAM	16Mb	64Mb
Extras	SCSI	SCSI Ser/Par
PRICE	£699 INC VAT - UPG 0430	£999 INC VAT - UPG 0740

*'MIPS' Millions of instructions / second, a normal Amiga runs at .67 MIPS

THE SILICA SERVICE

SILICA 1978 16 YEARS 1994 SERVICE TO YOU

Before you decide when to buy your new Amiga products, we suggest you think very carefully about WHERE you buy them. Consider what it will be like a few months after you have made your purchase, when you may require additional peripherals or software, or help and advice. And, will the company you buy from contact you with details of new products? At Silica, we ensure that you will have nothing to worry about. With our unrivalled experience and expertise, we can meet our customers' requirements with an understanding which is second to none. Complete and return the coupon now for our latest FREE literature and begin to experience the "Silica Service".

- ***FREE OVERNIGHT DELIVERY:*** On all hardware orders shipped in the UK mainland (there is a small charge for Saturday delivery).
- ***TECHNICAL SUPPORT HELPLINE:*** A team of technical experts will be at your service.
- ***PRICE MATCH:*** We match competitors on a "Same product - Same price" basis.
- ***ESTABLISHED 16 YEARS:*** We have a proven track record in professional computer sales.
- ***PART OF A £50M A YEAR COMPANY:*** With over 300 staff - We are solid, reliable and profitable.
- ***BUSINESS + EDUCATION + GOVERNMENT:*** Volume discounts are available. Tel: 081-308 0888.
- ***SHOWROOMS:*** We have demonstration facilities at all our stores.
- ***THE FULL STOCK RANGE:*** All of your computer requirements are available from one specialist supplier.
- ***FREE CATALOGUES:*** Will be mailed to you, with special reduced price offers, as well as details on all software and peripherals.
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HOME PENTIUMS?

By Christmas look out for the £500.00 Pentium machine and games to match?, Major companies agree that Pentium PCs are selling far better in the home market than to businesses. At home, buyers are running games, multimedia applications, loading up on CD ROMs and generally pushing their machines harder than those people using them at work. (Well, what a surprise! What do they think we have been doing with Amigas?)

The market for powerful PCs has always thought to have been driven by power hungry leading-edge applications. But the difference in word processing on a 486/66 versus a Pentium machine is not really noticeable, hence business resistance.

So that is why the price may well drop to entice the home user into buying Pentium-based machines..

420Meg = £249!!!

If you want mass storage, hard drive prices are falling right into your lap. (Ouch!)) HiQ, always on the ball, have told ***AUI*** that they have a drive that is fast and furious and big, very big.. and cheap, very cheap, sorry, very, very low price.

They have new 420mb hard drive upgrade packs "for Amiga 1200 owners". (We think they mean upgrades for the machines not the owners.). These special HD packs provide everything the A1200 owner needs to upgrade the machine for anything that needs mass storage.

The pack includes a fast Conner IDE 3.5" drive and A1200 cable kit, plus the HiQ 200 watt power supply which normally sells for £79.95. This power supply takes over from your existing power "brick" and is a part exchange with your unit. The drive has a tranfer rate tested at 1.5 mbs as tested in SYSINFO, plus everything you need to fit the unit is included with full instructions, or HiQ can fit for a nominal £10 extra, total price £299.95.

The set is also available without Power supply for £249.95. 420 Megs for £249? Or even £299? Amazing!

Contact: HiQ Limited, 176 Kenton Lane, Harrow, Middx HA3 8SU. Tel: 081 909 3885

PIONEERING FIRST

Pioneer claims to have introduced the world's first internal CD-ROM drive capable of quad-speed performance - the DRU104X. The company claims it is the fastest drive available (Well, it's got to be if it's the first, hasn't it?) If you have £599.00 to spare you can be a quad speed pioneer, though it's what you can play on it ... (The new multimedia David Bowie at four times the normal? He'd probably sound better that way!)

DELL TRIES KIOSKS

Dell is abandoning conventional computer retailers because they told ***AUI***, they are unprofitable.Oh really? It will be test-marketing in-store kiosks in non-computer outlets. Retail sales have contributed to less than 2% of Dell's $2.9 billion (Around £2 billion) turnover last year with mail order bringing in the profits. Three different schemes are being tested, unmanned, manned by a Dell-trained employee of the retailer and video conferencing. The retailer will receive a cut of the sale or a flat fee for the space the display occupies. Will a revitalised Commodore go the same kiosk route? Somehow we doubt it.

It's All In The Mind

According to Robert X Cringely, a gossip-columnist on US industry paper Infoworld,(Cringely? Is that a real name?) the propeller-heads in the Infoworld test labs can find 'no difference at all' in the performance of a 100MHz 486 and a 60MHz Pentium.

A user at a large manufacturer of frozen foods recently upgraded his machine to a 66MHz DX2 using the Intel OverDrive processor. Curious to find out how fast his souped up machine (You'd need that in a frozen foods place, wouldn't you?) would go he ran a speed testing program. He found it went like greased lightning. He tried the same test on a nearby 66MHz Pentium. The result? The 486 completed the test in 10.82 seconds, while the Pentium took 11.25 seconds. The utility program came from Intel, manufactuers of both the 486 and the Pentium chips.

Is the Pentium going to be a a case of the "Emperor's new clothes?" Could they really sell the world an expensive chip that performs more slowly than a cheaper one? Could they? Could they?

Boss of the Year?

In the judgement of his peers, Bill Gates, MicroSoft Boss and Multibillionaire, stands alone according to Arnold B Pollard, president and chief executive of Chief Executive Magazine as Bill Gates became Chief Executive Officer of the Year. Stands alone? Could that be because of his alleged reluctance to change his clothes very often?

Another sidelight on the computer world is the report that Gary Kildall, the man who founded Digital Research, has died. But the newswire simply said 'Cause of death was not available' as if he were a minor software product. Kildall could have been where Gates is today. The story is that when IBM was searching for an operating system for their personal computers back in 1980 they went to call on Mr. Kildall. He was up in his aeroplane at the time and apparently unwiling to break off and discuss business. They wanted to talk to him about his DRDOS which was a follow up on his successful CP/M, which users of the Commodore PET will remember with fondness or horror.

With Kildall unavailable, the guys in Big Blue called on Bill Gates who had another, then as yet, not really successful system, called MSDOS. And so computer history was made.

Gary Kildall was 52. Bill Gates is £4billion.

SHORT VDU GUIDE

The Health and Safety Executive has published a short and easy guide on how to reduce the risks of using VDUs at work. Aimed at employers who need to comply with the Health and Safety (Display Screen Equipment) Regulations 1992, the guide can be used instead of the HSE's existing but longer guidance document, and sets out whayt is required for the standard VDU workstation in a simple step-by-step way.

Contact: HSE, Baynards House, 1 Chepstow Place, Westbourne Grove, London W2 4TF. Tel 071 243 6000.

It's A Videoworld!

Nexus Pro have told ***AUI*** they are releasing a new CD-ROM aimed at video and multimedia enthusiasts containing a multitude of backgrounds fonts and sounds. Called "Multimedia Reference Library" they've put a price on it of £49.99.

The CD-ROM contains 300 high quality background pictures, 300 356 colour pictures, 300 compugraphic scalable fonts, 100 16 bit sound effects samples. It also has 150 Nexus Pro range JPEGS and 256IFFS and various ultilities.

They told ***AUI*** that the disc is mainly aimed at Amiga users who are into such paint, presentation andD TP software such as Brilliance, DPaint ScallMM etc but as the CD is ISO 9660 standard, the images are also compatible with PC and MACs. Lucky people aren't they?

If you want the disc and don't have the hardware to run it on, the ever helpful Videoworld will sell you some

Contact: VideoWorld, 8 Ardoch gardens, Glasgow G72 8HB Tel: 041 6411142

BOOMING INTERACTIVE

Interactive Digital Media will expand sharply in the US and be the fastest growing sector of the communications industry in the next five years according to the 1994 Communications Industry forecast from Veronis Suhler, a US investment bank.

Overall the communications industry will continue to expand in the US, and spending by both advertisers and consumers on products and services will reach $308.5bn - yes, that's £200 billion! - by 1998, a compound annual rate of 6.6 per cent over the next five years.

If you want to find out how many billions are coming your way you can get the The 1994 Communications Industry Forecast, from:

Veronis Suhler, 350 Park avenue New York, NY. 10022. Tel: 212 935 4990. Price $500.00 (yes, that's £300

ENHANCED SERIAL ADAPTOR KIT

New from Almathera is the Enhanced CD32 Networking Kit containing CDPD IV plus a CD32 serial adaptor Null-modem cable (1.8m) and TurboSernet floppy disk. CDPDIV is, claim Almathera, the only networking title fo CD32 with TurboSernet, for faste networking between the Amiga and CD32 plus the only CD32 netork kit to suppor networking with video creator. Price £39.95. Owners of networking systems from other companies can upgrade to the new software (CDPD4 and floppy disk for £20.95. Also on 081 687 0040

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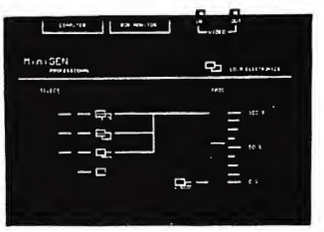

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HARD ON THE OUTSIDE

David Taylor test drives a hard bargain in the shape of the new Smart Stor PCMCIA external HDs.

Some people view the prospect of opening their computer to install a hard drive with the same trepidation they would performing amateur brain surgery. A600 and A1200 users can now breath a sigh of relief and just plug in and go with the two new Smart Stor/Plus devices.

Or so goes the theory...

After the initial Smart Stor drive had been replaced with one that wasn't riddled with errors, I could indeed simply plug the drive into the PCMCIA slot. To be fair, the problem with the original was probably that it was damaged in transit.

Once the unit it is installed, it's a case of customising it to your needs. It is difficult to imagine anyone who would be considering this device, with a maximum capacity of 30 MB, as their main hard drive, so the first thing to do is to stop the machine from booting that drive. For that is what it will do, because it is preformatted and the PCMCIA slot takes precedence over any internal drive.

Should you want to use this as your only hard drive, then it's simply a case of installing Workbench from floppy, using the Install software supplied. However, if you are considering this drive as ypur only one, seriously re-consider. 30 Megabytes will be used up by lunchtime.

To stop the drive booting should simply be a case of using HDToolbox. So, that's what I tried. Except that HDToolbox didn't recognize the drive.

After a call to the distributor, I discovered that there is a specific HDToolbox on the installation software. The lack of documentation and the fact that it is initially hidden from view when I opened the disk meant I just wished that somebody had told me first!

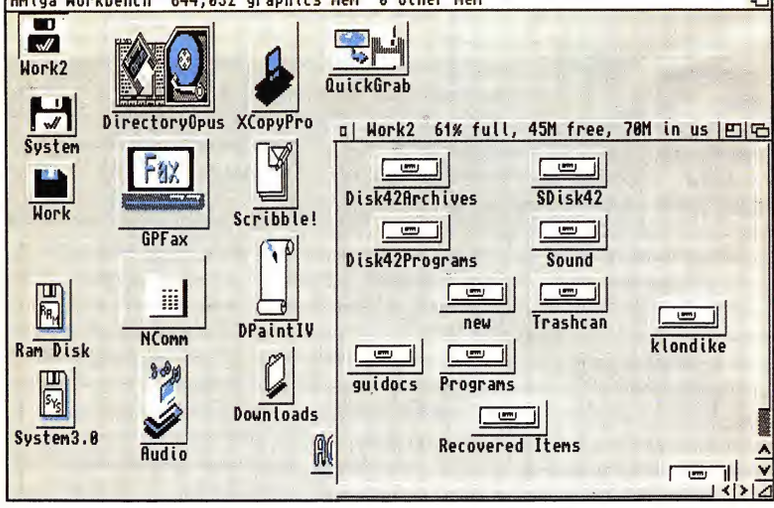
With the drive up and running to my satisfaction, I discovered that it's a rather nippy number. With a speed in bytes per second of 730,206, SysInfo rated this drive much faster than the internal that is in residence, which managed a measly 489,988 bytes per second. SeekSpeed rated the drive as the top of all the drives, with an impressive sequential seek of one sector taking 1.78 mS ranging to 32.30 mS for a random seek of 8 sectors across 90% of the drive width. However, the difference could easily be explained by the physical dimensions of the drive. Being small, the heads of the drive do not have as far to travel as on the larger 130 MB Smart Stor Plus.

DiskSpeed also gave great results, recording 62 seeks per second on the seek/read test and 290 files per second on the directory scan. Although it was, surprisingly, beaten by the internal on the file creation test.

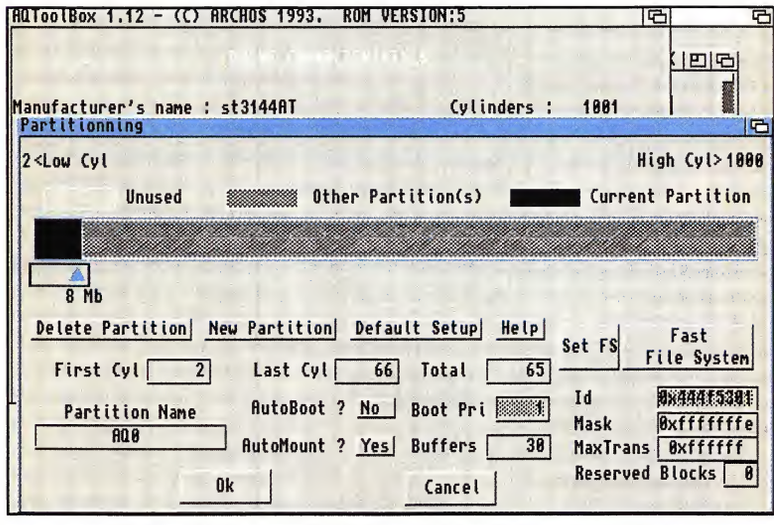
Faster

Ignoring the tests, the drive was noticably faster in use than my internal, which is the best indicator of all. The conclusion, therefore is that the Smart Stor is a fast and easily installed drive, but not of the greatest use. It may appeal to those who need to lock away data physically or transport it, offering as it does easily removeable mass storage. This is not the most acceptable of solutions. It's not a good idea to continually pull a peripheral of any kind in and out of the connector. Such treatment is not conducive to a long life for the drive.

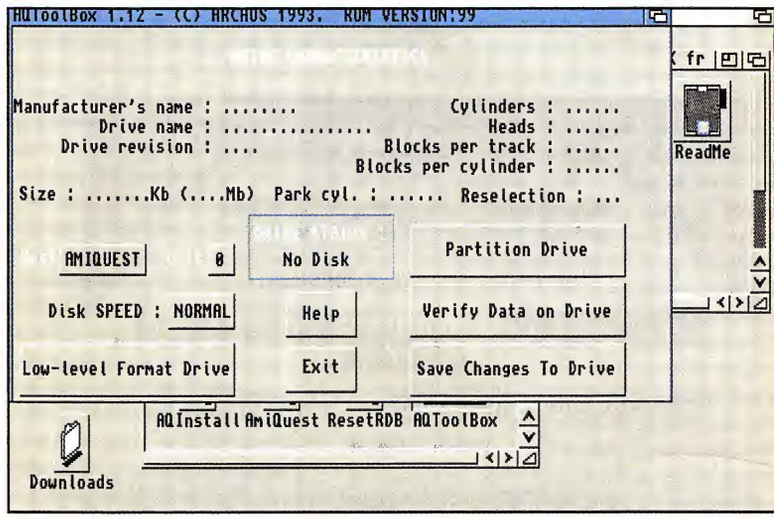
The price of the unit is also a problem. £170 for 30 MB reallly seems too much. The unit may offer easy installation and a way of retaining your warranty, but you need to be desperate for removable media to consider this and there may be better solutions, such as Magneto-optical or floptical drives. They are are a more versatile option than a one off payment for so little.



The drive appears just like any other on the Workbench screen.



The drives have their own HDToolbox, which is easy to use - once you find it.



The Toolbox is simply a case of clicking on options to customise your drive.

Big Brother

The Smart Stor Plus is the more interesting of these sibling drives.

This drive is much more in the mould of the external drives for the A500. It still slots into the PCMCIA slot of the A1200 or A600, but does not draw its power from there.

The Plus takes its power, via a custom cable, from the external drive port. It does have a through port so that external floppies can still be connected.

This connector, though, has several disadvantages. Firstly, it's not very well designed and although a lead can still be connected to the neighbouring serial port, it's a squeeze and involves trapping a wire. The two do just about fit, but not very well.

The other consideration that this type of connection forces is that of power drainage. With an internal hard drive, an external floppy and the Smart Stor Plus attached, the A1200 began to feel the strain. Read/Write errors began to appear when copying files across floppies and the system was a great deal more unstable than before.

The Smart Stor performs well, but is there enough storage for the price?

This drive is also considerably faster than my internal.

The solution is simple, lose one of the drives, either external floppy or internal hard drive. Given that most people will have the Plus as their only hard drive, this shouldn't be a problem. However, for those who have a hard drive already and see this as an ideal expansion, they should be aware that this ability to increase hard disk space without having to forfeit the original drive has some unwanted consequences.

In order to customize the drive, the same HDToolbox as the one for the Smart Stor has to be used. To use the drive, you need to boot from that floppy and install Workbench or the aforementioned HDToolbox to stop it booting.

One thing to note is that if you want to use an internal drive as the bootable drive and this as a pure storage medium, the time it takes to boot your Amiga increases. As the Amiga checks around all the devices and boots, I noticed a considerable delay. Instead of my friendly Workbench screen appearing after 10 seconds, it took more than 30, which is a real pain if you constantly need to reset. This is, of course, the price to be paid for having two drives and it is not a concern if the Smart Stor Plus is to be the only hard drive.

This drive is also considerably faster than my internal in some respects. Faster than the Smart Stor, the Plus was rated excellently by SysInfo, with 985,503 bytes per second.

Results from SeekSpeed tests concluded that it is, on the whole, faster at seeks than the internal, but not a patch on the Smart Stor (although one of the sequential seeks was not even as fast as the internal). A sequential seek of 1 sector took 3.94 mS and a random seek of 8 sectors over 90% of the drive took 45.51 mS. DiskSpeed results also concluded that the drive was not as fast as the smaller unit. It came out slower than the both the other drives in all the results: 47 seeks per second and 206 files per second in the directory scan, with only 13 files per second in the file creation test.

Test results are interesting, but not as valuable as your experience with the drive. This 130 MB drive is much larger than my internal and yet seems to be faster in practice. In the time I had it to review, I switched from using the internal for work to this one and did not regret it at all. It was much quicker to use in practice than the internal.

The 'advantage' of being able to remove the drive easily still has the same risks as with any other removeable drive, but it is still attractive if you occasionally want to lock the data away or move it from, say, work to home.

Both the Smart Stor and the Plus have one little quirk that is harmless, but a tad irritating. Since they were converted to use on the Amiga, they have a ROM icon, which appears at the bottom of the screen as AQ and cannot be removed.

Another, more positive, parallel with the Smart Stor is the 12 month warranty. I would, however, say that the prices for this drive are much more attractive than those of the Smart Stor.

At the higher end on the range, these drives offer excellent value for money and incredible disk space. Even Andy Eskelson would agree that 340 Megabytes is enough space for most people (at the moment). ***AUI***

RATINGS

Smart Stor	
FEATURES	N/A
EASE OF USE	94%
SPEED	90%
PERFORMACE	85%
VALUE FOR MONEY	60%
Overall Rating 70%	

Smart Stor Plus	
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INFO

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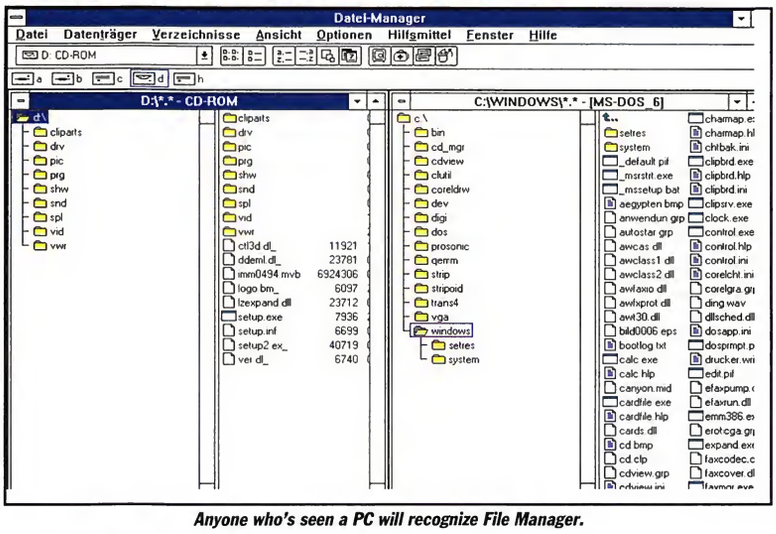
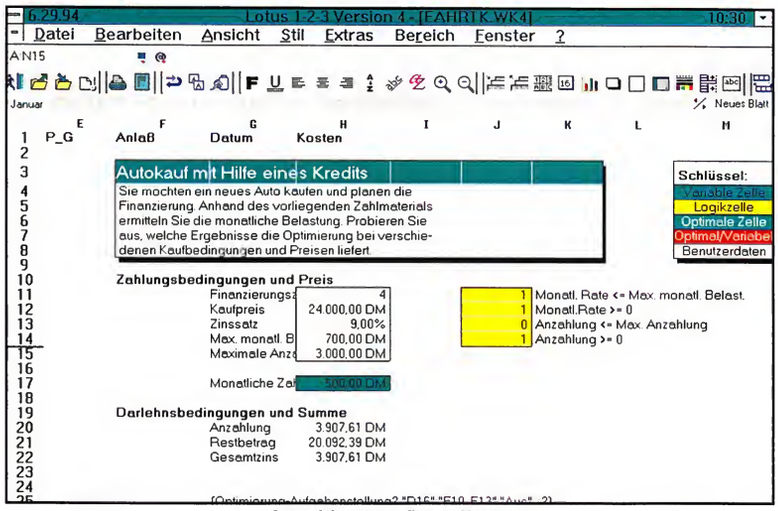


Anyone who's seen a PC will recognize File Manager.



Spreadsheets run fine on Vortex.

Sleeping With

Steven Broadbent test drives the new Vortex PC Emulator. It may be 486 and 50 Mhz, but for many Amiga users it's still consorting with the enemy.

I am not a great fan of the IBM-compatible range of computers. I've used them at work and seen them in action in home use, (thanks to traitorous ex-Amiga users I know) and even the all singing, all dancing 486DX2/66 has failed to convince me that the PC is the way forward for home computers.

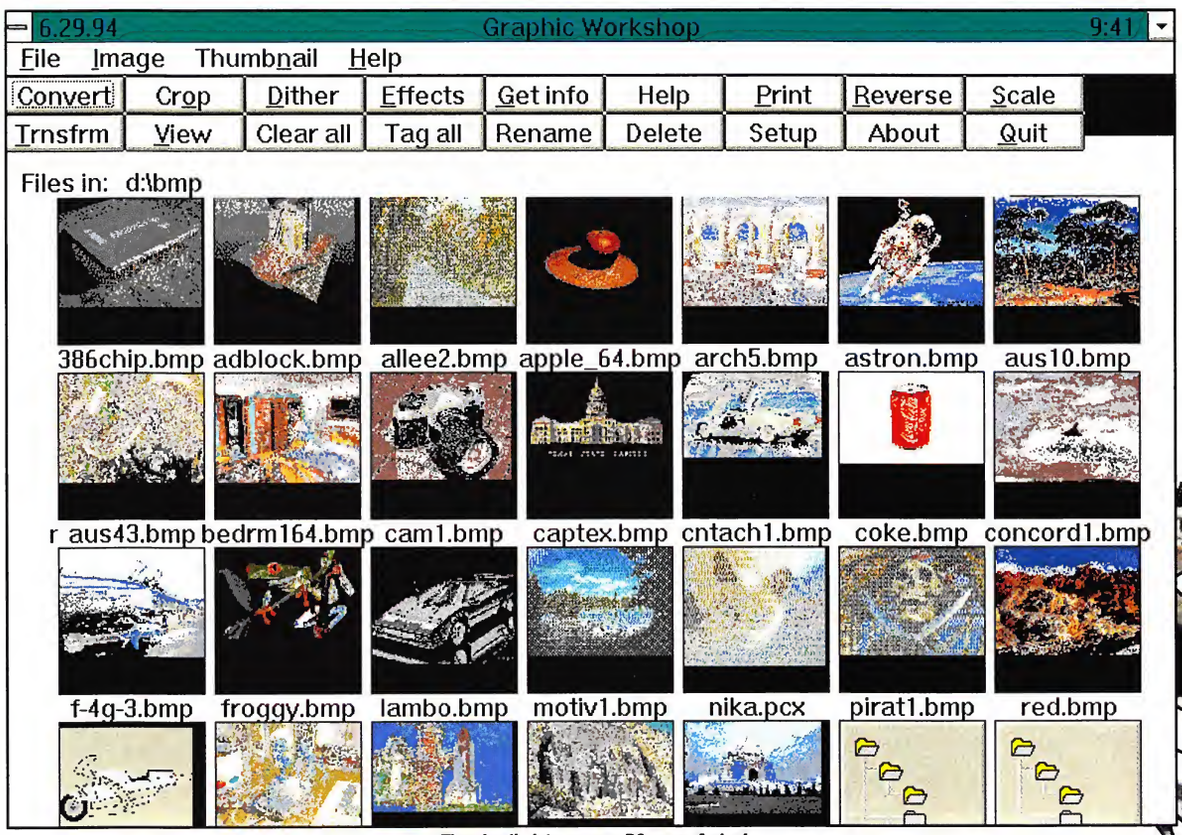
MSDOS is a bitch and Windows 3.1 is a sad attempt at offering the user even a little friendlieness. However, I am also mature enough to realise that because of the sheer numbers of PCs in use around the world, a little "backward" compatibility on the part of the Amiga would not go amiss. We are talking, of course, about Amiga people who use PCs at work and maybe need to take work home with them or indeed students for the same reason.

There are already a number of products that offer compatibility, both software, through programs like PC Task, and hardware versions thanks to the countless bridgeboards available. However, although they all offer compatibilty (and also underline just how versatile the Amiga is), they are generally drastically lacking in the performance department. All that could change now though with the release of the Vortex Golden Gate 486SLC2/ 50Mhz AT bridgeboard (phew!) for the Amiga 2/3/4000 range.

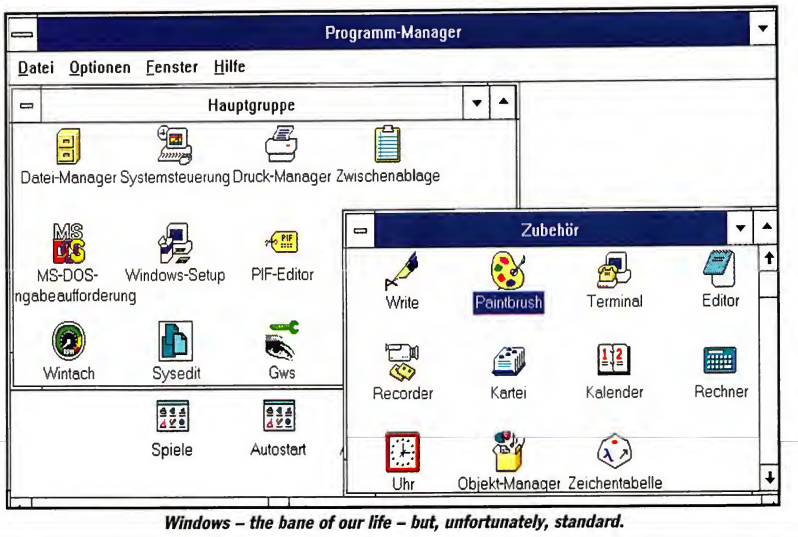
Bridgeboard

The names "Vortex" and Golden Gate" should already mean a lot to bridgeboard users, as they are without doubt the market leaders in the field of PC emulation. Their new board – let's call it the SLC2 for short – is a whopper!

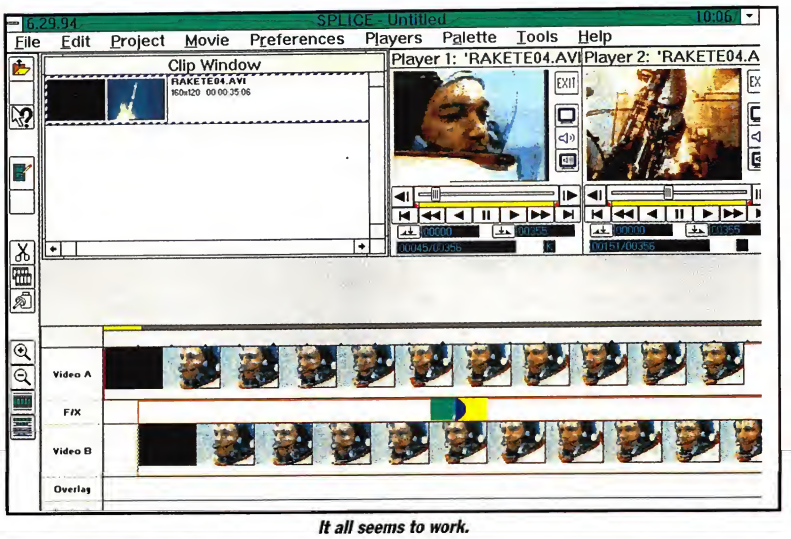
Based on a full length Zorro II card, this baby is not just an emulator, but an actual PC on a stick – sorry – card. Powered by a 486 Cyrix processor running at 50Mhz internally and 25Mhz externally, this far and away outstrips any other "emulator" available. Sitting next to the processor is a cooler unit, which is a small fan and is supposed to help in cooling down the chip when things get hot.



Thumbnail pictures on a PC on an Amiga!



Windows – the bane of our life – but, unfortunately, standard.



It all seems to work.

The Enemy?

Whether this works or not is another thing, although the board hasn't melted yet so that must be a good sign.

The standard version of Vortex comes complete with 2.5MB of RAM and is expandable to 16MB. If you will be running applications such as Windows, then it is advisable to add at least another 2MB. More memory can be advantageous to the Amiga too. Simply by setting a Jumper on the Vortex motherboard, 2 or 4MB of the board's memory can be allocated to the Amiga in the form of an auto-configuring RAM expansion!

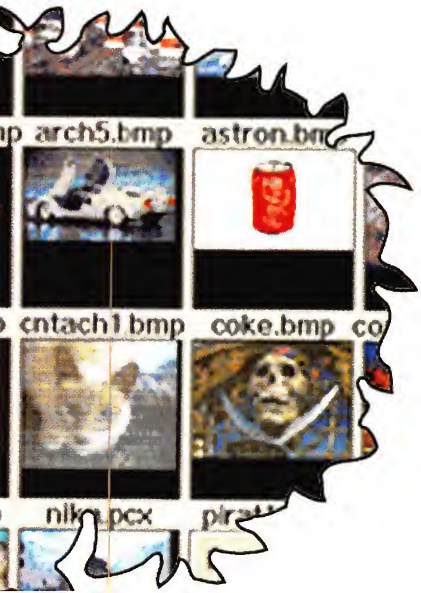
Other optional extras include a 80C387SX co-processor, a floppy disk controller – which is used for PC-only floppies upto a capacity of 2.88MB (the emulator also accepts the Amiga's disk drives, DD or HD.) and a PC/AT hard disk controller, (again, for PC-only hard drives).

Cards

Unless you enjoy working in 16 colour CGA (ugh!) a graphic card is a must.

Fortunately Vortex supply a 1MB VGA version, namely the ET4000. You can, of course, buy your own graphic card, but don't forget the Amiga's PC slots are of the ISA variety so any card you might buy must be compatible with ISA. The same also goes for sound cards.

If you only have one monitor available then you are also going to need the monitor master. This gadget is a switchbox and interchanges the display between the Amiga and the PC. To get the most out of the VGA display it is preferable to have a multisync monitor, although a basic 1084s is also up to the task (just).



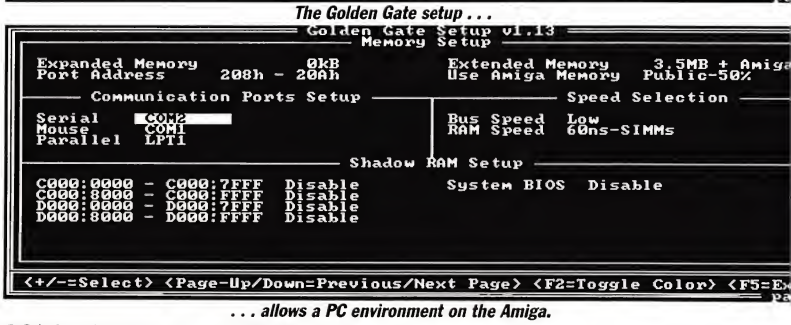
Flexibility

The main feature of the whole emulation is not just the power it delivers, but the flexibility on offer. This becomes obvious at the main configuration screen. For hard drive users there is a choice between using an Amiga file as a PC partition (very very (very) slow!), an Amiga DOS partition for the PC hard drive (very fast), or indeed an actual PC/AT IDE hard drive thanks to the aforementioned controller (fastest).

This is also true for floppy disk operations, with the choice even greater here. Without the FDC (Floppy Disk Controller) installed, Golden Gate emulates the Amiga's disk drives for use under MSDOS. A4000 owners are the lucky ones here because the 4000 range have HD drives built-in as standard, which means they can be directly emulated as 1.44MB MS-DOS drives. The more widely used DD drives are emulated as 720KB MS-DOS drives.

For A2/3000 users (or A4000 users if you happen to already own a PC/AT disk drive), the FDC will be needed. This controller chip allows the use of all PC/AT disk drives, both 3.5" and 5.25" to be used with the emulation. The formats range from 720KB to 2.88MB for the 3.5" standard and 360KB to 1.2MB for the 5.25" format. In total three floppy drives can be used for Golden Gate, two internal and one external drive. (Thanks to a connector port at the rear of the board.)

The Golden Gate setup . . .



. . . allows a PC environment on the Amiga.

From the system setup screen you can also decide if any Amiga RAM is to be used for use with MSDos. It's a good idea in theory, but in practice I could not get it to work! No matter what I selected on the setup screen, every time the emulation booted up it showed the amount of Amiga RAM used as nil! (Yes, I did save the settings!)

This "glitch" aside, setup is taken care of quickly and efficiently, with enough options available to suit every potential user of the board.

PC Software

Once the board and various peripherals have been installed and setup taken care of (both of which are explained in great detail in the manual), it's time to start the emulation and jump into the world of MSDOS.

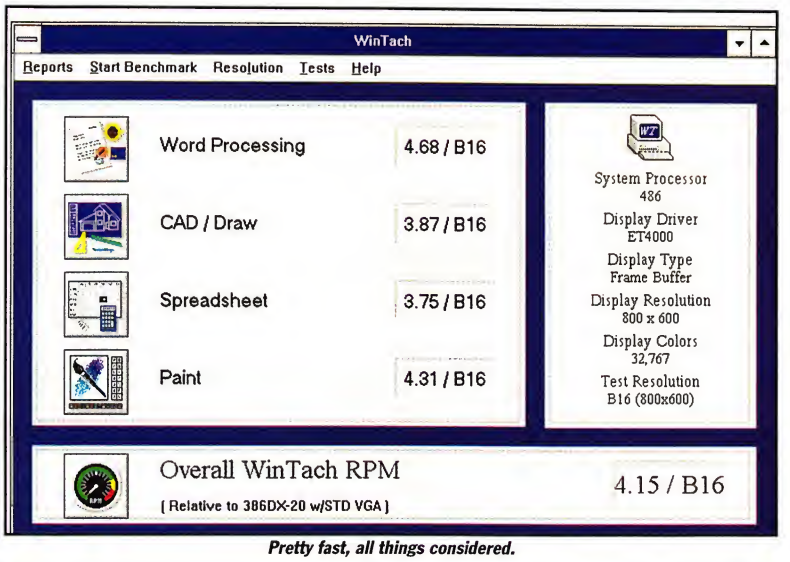
Before you do, however, it's a very good idea to have a copy of MSDOS handy, because apart from a disk containing various utilities for use with the board, no dedicated PC software is available in the package.

Once the emulation is up and running it's time to discard the comfortable enviroment of AmigaDos for its unfriendly, ugly, cumbersome, unfortunate (I could go on forever!) PC counterpart. These remarks can, in effect, be taken as a compliment for Vortex, because once Golden Gate is

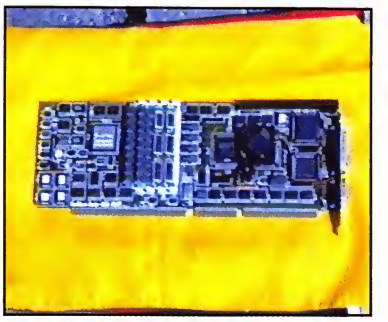
Sleeping With The Enemy

continued

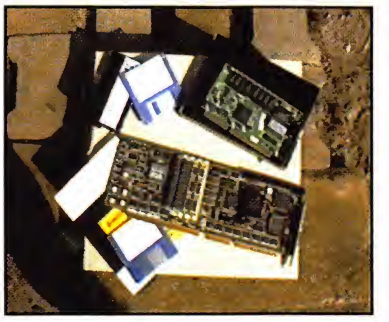
installed in the Amiga you have a computer within a computer. (If you find yourself feeling ill from the effects of over-exposed PC/AT use, you can always switch back to the Amiga by way of a keyboard command because the emulation is fully multi-tasking.)



Pretty fast, all things considered.



The Vortex board itself...



...together with all the set up.

Advantages over a PC

1. All existing disk drives can be used.
2. All existing hard drives can be used.
3. More Golden Gate RAM means more Amiga RAM.
4. Only one monitor needed.
5. All in one box.
6. Turns the Amiga into the top home computer!

Programs tested:
MS-Dos 6.0 • Windows 3.1 • Lotus 123 • Win Word 6.0 • Corel Draw 4.0 • Graphics Workshop • Indy Car Racing • F1 Grand Prix • Commanche

All the above programs were tested with the ET4000 graphic card installed and 4.5 MB ram.
Performance:
SysInfo (Norton Utilities)

Golden Gate	84
486DX2-66	141
386DX-33	36
286-12	9

WinTach (Compared to 386DX-20)
With ET4000 graphic card, 800 * 600 res. 32,767 colours
Overall rating 4.15 (times quicker as 386DX-20)

Four Megs

All the programs I tested under MSDDOS worked perfectly although as I mentioned earlier, Windows needs at least 4MB to function properly. (This is the case for all PCs on the market, not just the emulation.)

On the Golden Gate MSDOS utilities disk there is a neat little program which alllows file transfer between MSDos and Amiga partitions and vice-versa. With this program, it is possible to copy files quickly from the Amiga hard disk to the MSDOS 'C' partition.

On the Amiga side of things, it is also possible to have direct access to all MSDOS drives, both hard and foppy, thanks to a server function, which operates without the need of the emulation running.

Conclusion

The board is the ideal answer for anyone who needs a PC, but already owns a big box Amiga. However, in comparison with a 'normal'

486 PC, Golden Gate is a very expensive piece of kit and unless it drops drastically in price, I think it will only find favour with the professional Amiga user or the spoilt rich kid who wants to own only the best! Sorry all you students out there, I don't think your budget will quite stretch this far...

Perhaps the best endorsement for the card came from that "friend" of mine, who, after seeing the board in action, said if the card had been available earlier, he would not have swapped his Amiga (2000) for a PC in the first place! His problem. *AUI*

RATINGS

Vortex PC Emulator

[redacted]

(MS-Dos knowledge req.)

[redacted]

Overall Rating 89%

INFO

Contact:
Vortex Worldwide, Falterstrasse 51-53, 74223 Flein, Germany
Tel. 01049 7131 59720

or: Applied Systems Group, The Flarepath, Elsham Wold, Brigg, S. Humberside, DN20 OSP
Tel. 0652 688330

or: Trilogic, Unit 1, 253 New Works Road, Bradford, BD12 0QP
Tel. 0274 600150

Prices:
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486SLC(25Mhz) - 2.5MB **£399**
486SLC2 (50Mhz) - 2.5MB **£579**

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It's got a Good Beat

David Taylor dons running shorts and gets into shape with a novel new fitness gadget.

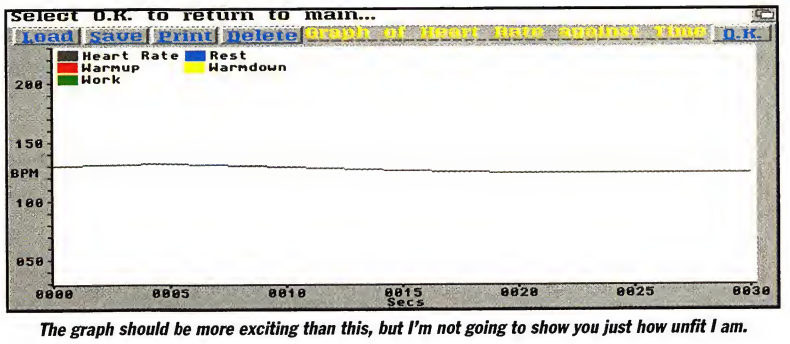
There have been a few unkind people of late who have claimed I have gained a few pounds. Normally, I simply point them in the direction of my bank balance and prove them wrong, but Heart Track has made me face up to these criticisms.

Heart Track, the hardware, will monitor your heart beat while the software will give a visual representation.

The hardware needs a little assembling, which is very easy to do. It needs a serial port converter attaching (one is supplied in the box) and the monitor needs clipping to the chest band. There is a small watch battery which operates the monitor, but this too was supplied. All you need to do then is plug the device into the serial port and strap the monitor around your chest. The strap itself is separate from the rest of the hardware and sends a signal to the receiver which is plugged into the computer. You can either rest the receiver on a surface nearby or wear it like a watch.

Extension

The only real problem is that the wire from the port to the receiver is not really very long, although it is always possible to get an extension lead.



The graph should be more exciting than this, but I'm not going to show you just how unfit I am.

The software can either be run straight from floppy or installed onto a hard drive.

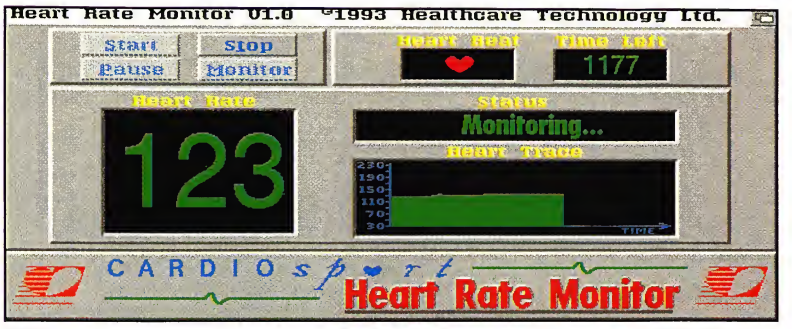
There is one gripe concerning the installation software. Whilst it installs everything fine and easily, it does not offer any options and installs to its default directory in your System disk. I would have preferred to have been able to choose the destination. The more control you have the better, although that might not be true for novice users, who simply want to plug in and go.

Essentially, the software supplies a readout of your heart beat. This is displayed quite simply as a number on the screen. There is also a graph, which plots your progress.

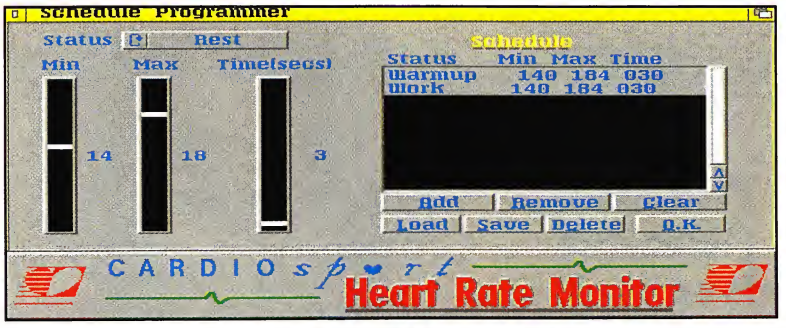
It is possible to set yourself a workout routine, including warming up time, exercise time and wind down time. You preset a minimum and maximum heart beat for each of these periods along with duration. When you start your routine, the computer will sound an alarm if you do not match your parameters, that is to say if your heart beat doesn't stay between the two numbers you set. In other words, the computer tells you if you are overdoing it or if you are lagging behind. As you might guess, the latter was the warning I encountered most.

A printout of your performance is offered.

Heart Track seems like an ideal way of setting yourself an exercise routine at home. It allows you to actually see the effect you are having on your body and should give you some idea of how much is good for you. Used sensibly and, as warned in the instructions, after medical guidance, Heart Track could offer you the ideal way of exercising safely.



The main screen where your heart beats out the time.



Customise your workout to fit your personal needs.

Range

I do think that the range of the sensor and the length of the wire could have been more. The manufacturers do say that there is a remote relaying system available, which will relay your heart beat over a greater distance. As I said earlier, an extension lead could easily be fitted also. It would have been better though if these had been included into the original concept.

It is also claimed that the system is waterproof, which means that with an elaborate setup and your own private swimming pool, you might even use it in the water! Still, if you've got enough money for those, you've probably got your own personal trainer!

Heart Track is ideal for the home and brings an original use for the Amiga. Perhaps now the computer won't be seen as a machine that turns people into couch potatoes, but instead into Linford Christies. Well...

It might also be an attractive package for small clubs, who have the computer and would like a cheap add on to their exercise facilities.

£95 seems like quite a lot of cash and I would have preferred the software to look a bit more professional. It seems that there may be stand alone products that could rival this price, but Amiga fitness freaks should be glad to see this. For those with technical know how, I'm sure they'll be writing new programs that offer them more than the original software. It certainly takes some of the boredom out of exercising.

Well, time for a few more press ups before lunch, I think. *AUI*

RATINGS

Heart Track

FEATURES	75%
PERFORMANCE	100%
EASE OF USE	95%
DOCUMENTATION	70%
VALUE FOR MONEY	80%

Overall Rating 80%

INFO

Price: £94.95
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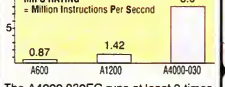

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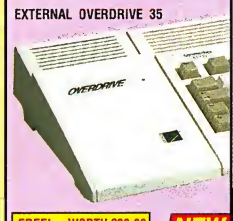

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AMOS Liberator

Considering trashing Amos from your hard drive? Andrew Deeley takes a look at a new AMOS extension that hopes to revive the ageing programming tool.

While AMOS has stood still, other products, such as Blitz Basic and to some extent Dice C, have hacked away at the lead it once held. This, coupled with the lack of support from the publishers, has brought about a growing migration of disgruntled users.

However, there are still many thousands of AMOS users around the globe who are reluctant to give up on the product. So maybe it is just as well that there are a handful of independent developers that are keen to continue, where the others left off.

Donald Cameron, the man behind the T-Soft label, fits this mould of faithful developer nicely. Realising that AMOS needed to be a bit more flexible he set about creating a product that would remove many of the restrictions that the AMOS environment places upon the programmer.

The end result was an AMOS extension called Liberator, which has been given the seal of approval by the AMOS User Group and has had its own official extension number allotted to it.

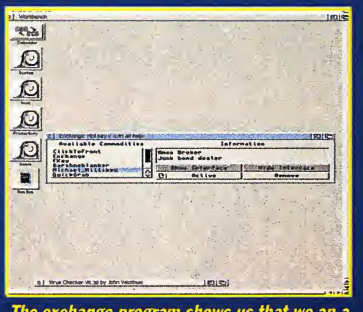
Liberator works by giving AMOS programmers access to over 1300 function calls from 47 Commod-ore and third party libraries. With such an addition to your armoury the Donald believes that with Liberator installed, "AMOS is truly equivalent in power and capability to the so-called 'serious' high level programming languages."

It is time for AMOS coders to get serious because with this installed all manner of creative productivity software is achievable.

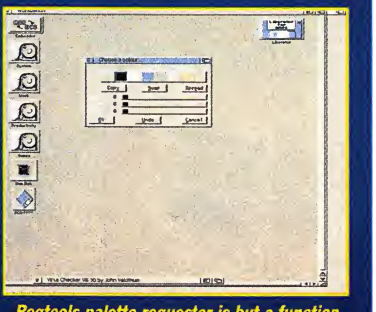
As biased as he may be, he could well be right. Commodities, crunchers, archivers, real Task-Wait status, Rexx, Intuition GUI's and much much more are all now readily available to the AMOS coder. In short it is time for AMOS coders to get serious because with this installed all manner of creative productivity software is achievable.

One of AMOS's biggest drawbacks was its inability to work in harmony with the rest of the Amiga's OS. Opening a window or screen upon the Amiga's Workbench was just impossible. Now though, with full support for the Intuition library, you can open OS friendly windows and screens to your heart's content. In fact people will not believe that your masterpiece was programmed in AMOS.

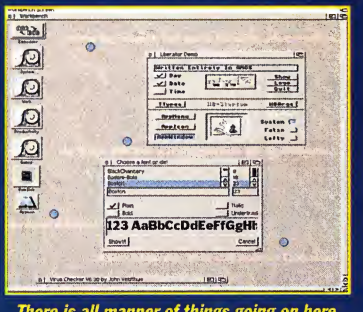
Full Intuition support brings AGA compatibility. It is now possible to open up an AGA screen and display pictures or text upon it. But it is not all plain sailing. Though you can open the screen, you cannot use any of the AMOS commands to write to it, instead you have to set up and control your own Viewport. Definitely one for the more knowledgeable programmer.



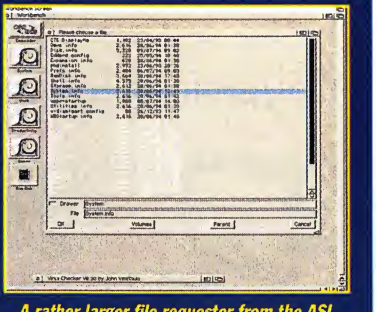
The exchange program shows us that we an a Commodity, written in AMOS, activated.



Reqtools palette requester is but a function call away.



There is all manner of things going on here, all courtesy of AMOS.



A rather larger file requester from the ASL library. One of the many libraries supported by Liberator.

Specify

In order to access the function calls you need to be able to specify which function you want to execute and what parameters you wish to pass it. This is very straight forward:

VOID=F<refreshg adgets>
(GAD,WIN,REQ)

The function Refresh Gadgets() redraws the gadgets specified in the parameters GAD,WIN,REQ. The actual syntax is almost identical to C. The only difference being the fact that you need to enclose the function name with F<>, so that AMOS knows you are calling a library function.

RefreshGadgets is an official Commodore function. Third party function calls are treated slightly differently because you need to place the library name in front of the function name:

RV=F<octaplayer_freeplayer8>

Here the function name is freeplayer8 and AMOS knows where to find it because we have told it to look in the octaplayer library.

Liberator, while not difficult to master, is not exactly a beginner's product. You do need some degree of programming ability or confidence but do not let that put you off. If you are serious about learning how to program the only way to do it is to get stuck in. As the current IBM advertising campaign says, Nobody ever got famous through saying something can't be done.

Before you can get start you will need instructions covering all the supported library calls. Unfortunately, mainly due to copyright reasons, Liberator does not provide these. All Commodore libraries are covered in the official Commodore Autodocs, which are distributed by Commodore themselves. The third party library documents have all been compiled into AmigaGuide format and placed into the Public Domain. Obtaining these is straightforward and the addresses that you need to contact are included in the manual.

The manual itself, which comes in the form of an AmigaGuide file, takes you through the process of installing and using the software. It is not particularly extensive but it provides you with all you need to know in order to get yourself started.

Conclusion

If you have not totally given up on AMOS then you ought to get hold of Liberator, it is the most exciting AMOS release since the compiler an should give a new meaning to your AMOS coding. ***AUI***

RATINGS

Amos Liberator

FEATURES	80%
EASE OF USE	78%
PERFORMANCE	84%
DOCUMENTATION	75%
VALUE FOR MONEY	91%

Overall Rating 82%

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Samsung SP2417

Gideon Overhead finds that Samsung are breaking new ground in value and decibels with their new 24 Pin heavyweight contender.

If you took a look at the Samsung SP 2417, examined the results of its print ourput and had to guess its price, the chances are that you would say about £250. The SP-2417 is a very good quality 24 pin Dot Matrix colour printer but Samsung are asking only £159 for it. Stunned? Yes, so was I! The printer comes with as standard a mono ribbon, but the colour upgrade is only £16 more.

I don't know what is inside the SP-2417 but it feels like a brick has been placed at the bottom. It appears to have been designed to sit on a desk and not be moved, unsurprisingly considering its sturdiness. The printer weighs in at a hefty 9.5kg which keeps it rock steady, and the build quality of the whole machine is excellent.

Samsung are one of the contenders to rescue the Amiga and if they do take on our beloved machine and its technology and manufacture Amigas to this standard we will have nothing to worry about.

Buttons

Controlling the printer is made simple by having only five buttons on a panel at the front. The first button on the left is the Font button which allows you (when off line) to select one of the following font styles: draft, roman, sans serif, courier, gothic, elite, and script.

The next button is Feed. This button has 4 different functions depending on the states when it is used. If the printer is off line then you can feed paper by one line. If you hold it down for more than one second a whole sheet of paper is fed through. If the printer is on line then you can feed the paper a fraction of the way through, in fact as little as 1/90".

If you hold down the feed button when powering on, you can start the self test mode. If you do this then be prepared for a long wait while the SP-2417 prints out every character in every country it supports. These number around 15 including Latin America and even Slovenia., a quite remarkable tange of character sets available for such a low price printer. There are even TWO Spanish sets. An international selection indeed.

The third button you press when you want to load a single sheet of paper or park a fanfold piece. The fourth button is named "tear off" and is used when you are have fanfold paper. Just press it, and the paper will be fed to the perforated edge so it can be easily torn off.

Handling

Paper is handled with ease in one of three ways. The first is single sheet feeding in which you simply place a piece of paper in the top of the printer and press the feed button. The second is fanfold which is easily attached at the back. The third is the sheet feeder which is not so easily noticeable at first. You have to first slide the feeder which is essentially a tray out of the bottom of the printer. You then fill it with paper and slot it back in. I did not encounter a single paper jam when reviewing this printer which is excellent.

Quiet

One of the main features of the SP-2417 is its quietness, hence its name. The Samsung printer lives up to its claim admirably by being one of the quietest printers I have ever seen, or rather, heard. For those of you who need figures, in normal mode the noise is up to 46 dB. This is achieved by the interior being coated in a thick layer of foam which damps down the sound. It is, however, very noisy if you do not have the cover on. But without doubt it will simply tick - not growl - away in the backgrounnd and hardly be noticable in a normal office or home environment. It has to be an astonishing achievement for the engineers to have created such a quiet almost silent printer at this level of price.

Speed

It is not the speediest of printers but reaches a reasonable 160 Characters Per Second (CPS) in Draft and 53 CPS in Letter Quality. And that is probably as quick as you would expect any low price dot matrix printer to be.

The Samsung P2417. One of the quietest printers I've seen or heard!

Driver

There is no exclusive printer driver for the SP-2417 but it is compatible with IBM Proprinter X24E and Epson LQ-860. You can print colours by selecting the Epson LQ-860, and the LQ-850 when you are just printing mono.

Conclusion

The SP-2417 breaks new ground in the printer world by being the cheapest quality 24 pin colour dot matrix printer on the market at the moment. How do they do it? Well, you will have to ask Samsung. If you are a student and are after a printer to take away to college this is ideal, but beware. It is not easily portable and your arms will soon tire if you try to carry it for too long. But with the print quality as good as a printer twice this price, the acceptable speed and the almost silent operation this is a bargain for anyone wanting a high standard of printer at a very affordable price. Highly recommended. ***AUI***

RATINGS

Samsung SP2417

FEATURES	80%
EASE OF USE	88%
SPEED	78%
PERFORMANCE	85%
VALUE FOR MONEY	98%

Overall Rating 90%

INFO

Price:
£159 including mono ribbon
£16 Colour Kit
Contact::
Samsung Electronics Ltd
Samsung House
225 Hook Rise South
Surbiton
Surrey, KT6 7LD
Tel: 081 391 0168

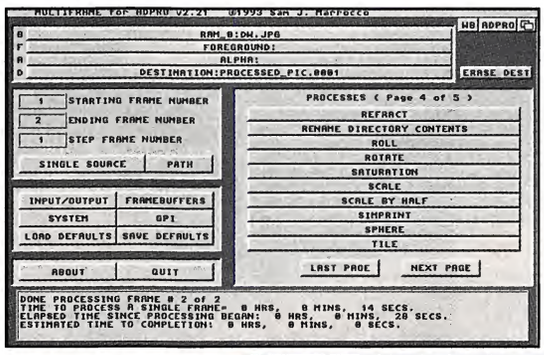
MultiFrame 2.21

As good as Art Department Professional is, things can get a little difficult when you want to batch process a whole load of images. That's why MacroSystem US have come up with MultiFrame says Gary Fenton.

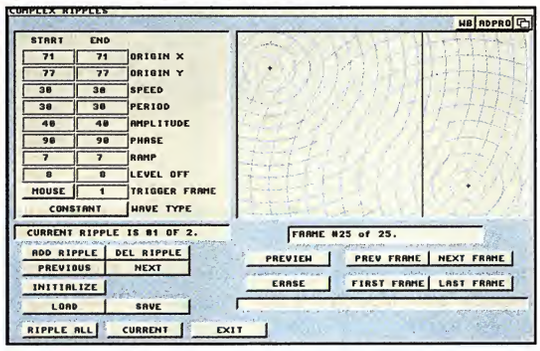
Art Department (ADPro) is to pictures as ProText is to words. At least in my opinion anyway! With all the effects ADPro or MorphPlus can do you'd think ASDG (who produce ADPro) could have made it easy to process batch files, but no.

Luckily ADPro has some pretty good ARexx support so it's possible to write a script to load in 100 JPEG frames, perform a ripple effect and then save the results as an anim file. Unfortunately this task is an uphill struggle for most people who know tiddly-squat about ARexx. Last year ProCONTROL came onto the market, which was nothing less than manor from heaven for ADPro users. It allowed users to perform automated batch processing of files with the minimum of fuss.

MultiFrame also lets users of ADPro or MorphPlus to process whole streams of files, but its interface and approach is totally different. For a start, you don't use it by creating scripts or lists. Instead you have to select one of the many available processes which are listed on the main menu of MultiFrame.



MultiFrame's main menu screen.



The Ripples visual interface makes life easier.

From the Input/Output menu you have to select the loader and saver to be used in whatever process you decide to use. The screen resolution and dithering options are also chosen from this menu.

MultiFrame takes the source images to be processed from an assigned directory called Background. It can also handle other images for composition held in a directory called Foreground with optional Alpha Channel files and the results are saved in a directory called Destination. A file requester is used each time you select files, so you don't always have to put the images in the correctly assigned directories.

The various processes cover just about every ADPro function and include some clever comb-inations of ADPro operators to produce new effects. For example, the Fresco button (from the main menu) presents a separate menu where the amount of water and stroke depth can be altered. There's also a special process for anti-aliasing and motion blur.

If you own MorphPlus, you'll have the Ripple operator which can be very effective - if you can work out how to get the results you picture in your head. MultiFrame has a visual interface for doing ripples which allows you to add as many ripples and origins as you like. Getting the settings right for most people (including me) is a hit and miss affair and that's why MultiFrame's preview feature for ripples is one of the highlights of the package.

Clicking on Preview draws the ripples on the MultiFrame screen in real time. Although you can't see your image refracting under the ripple (it's just animated circular lines) it gives a pretty good idea of what will happen when you render the ripples for real. The other operators which would benefit from a visual interface have to be used by just inputting numbers - there's no visual aid. I find it very disappointing considering MacroSystem went to the trouble of creating a visual aid for ripples - where's the visual aids for composite, perspective or rotate? Hmmm.

MultiFrame has a few other tricks to boot, such as spline path editing (with tension continuity and bias controls), GPI triggering, automatic frame buffer support (including Retina, Opalvision and Harlequin) and file protection to stop you saving over previous work.

Conclusion

The unfortunate thing with MultiFrame is that it's not possible to use more than one process at a time. If you wanted to add a blue tint to a batch of images and rotate them 45 degrees and animate another image moving across the screen (using composite), you'll have set up and execute each of the three parts separately, one after the other. But if you use ProCONTROL instead, it's just a matter of setting it up in one go and that's it. Simple.

Only a very few people will need both ProCONTROL and MultiFrame. It's horses for courses and I personally prefer ProCONTROL, because of its greater flexibility. More work needs to be done on MultiFrame to make it the first choice for ADPro users, but if it does what you want then go check it out. ***AUI***

RATINGS

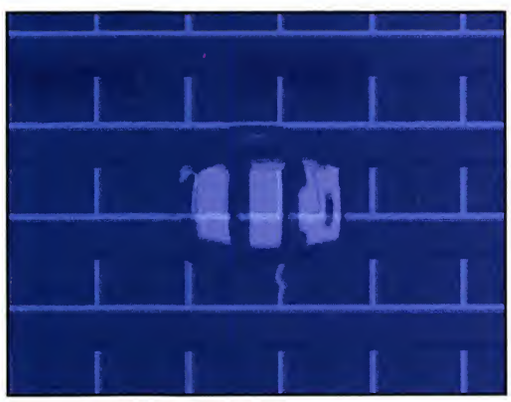
Multiframe

FEATURES	85%
PERFORMANE	82%
EASE OF USE	88%
DOCUMENTATION	80%
VALUE FOR MONEY	69%

Overall Rating 75%

INFO

Price: £69.95
Contact:
Premier Vision, The Foundry
156 Blackfriar's Road
London, SE1 8EN
Tel: 071 721 7050



An animation sequence created using MultiFrame: A ripple appears in the centre of the screen.

As the ripple moves outwards it reveals a company. An Alpha channel (created in DPaint) was used for a soft reveal of the name.

All transparency has gone from the name. You can see the whole animation during the credits on Amiga CD! No. 3.

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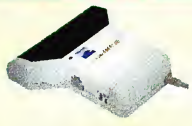

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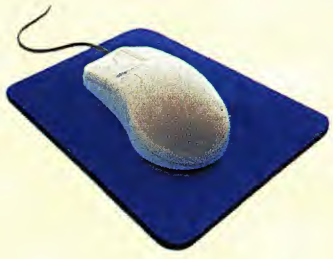

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SX-1

David Taylor and Gideon Overhead reveal the best news yet for present and even future Amiga CD 32 owners.

The SX-1 looks like any ordinary grey box, but hides great secrets inside.

Well, we had to wait a little longer than expected, but the much anticipated SX1 has finally been released. And with its arrival the uses to which the Amiga CD 32 can be put have grown hugely.

Has it been worth the wait? Well, this useful add-on certainly fills a gap that the hungry Amiga public have been troubled with since the Amiga CD 32 was launched last Autumn. Why, they reasonably asked, should you have a powerful 1200-based computer and only be able to use it for very restricted purposes? Why not let it be the powerhouse the 1200 can be with all the advantages of the CD thrown in?

Paravision has come up with the perfect answer.

Paravision?

The SX-1 has been attributed, only partly correctly, by some magazines to Microbotics. But in fact the credit for this very useful add-on for the Amiga CD 32 should more accurately be given to Paravision.

Who are Paravision? Well, they are a Dallas, Texas-based company which has recently been formed to exploit new areas of the burgeoning multimedia technology.

Microbotics had, as so many Amiga devloping companies, money troubles and Paravision, run by a dynamic and innovative ex-banker, Robert Maynard, decided to licence all Microbotics products so that they would not be lost to the Amiga community.

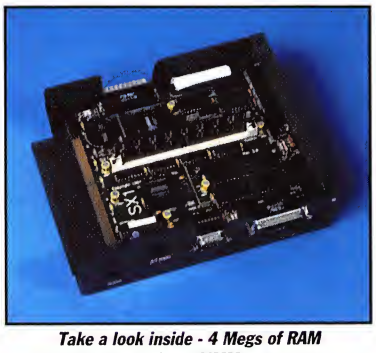
Because of Microbotics' financial problems it is very likely that without the intervention of Paravision the SX-1 might never have reached commercial production and what might turn out to be one of the major influences on the fate of the Amiga CD 32 would have just not appeared.

CD 32 owners owe a vote of thanks to Paravision.

Installation

Installing the unit is easy enough. Remove the back slot and slide the module on. There is an expansion slot that will allow you to add on the Full Motion Video cartridge as well.

The SX1 doesn't seem to fit onto the CD 32 quite as well as we would have liked. This is because the SX1 slightly overlaps slightly the CD drive lid. We expected this to cause problems, however, to be fair, it has given no trouble whatsoever.



Take a look inside - 4 Megs of RAM on those SIMMs.

Configurations

One great advantage of the SX-1 is the configurations you can buy it in. This really can turn the CD 32 into a computer that has teeth and bites!

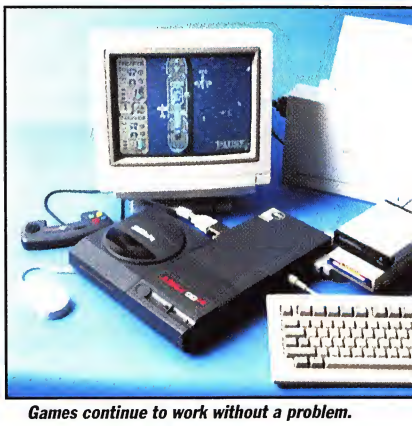
We were very pleased when we had looked inside the unit supplied for review and thought, "Hang on, that's a set of incredibly small SIMs, and isn't that a hard drive nestled underneath?" Blow me, we were right. 4 Megs of welcome memory and a pretty fast hard drive with 60 Megs at our disposal.

We weren't expecting a hard drive to be included but found out when I heard a buzzing sound upon power up. The SX-1 boots exceptionally quickly and searches for an external drive. If it doesn't find one, a requester pops up asking you to insert DF0:, but this can be cancelled upon which the machine boots to Workbench.

Pin Sharp

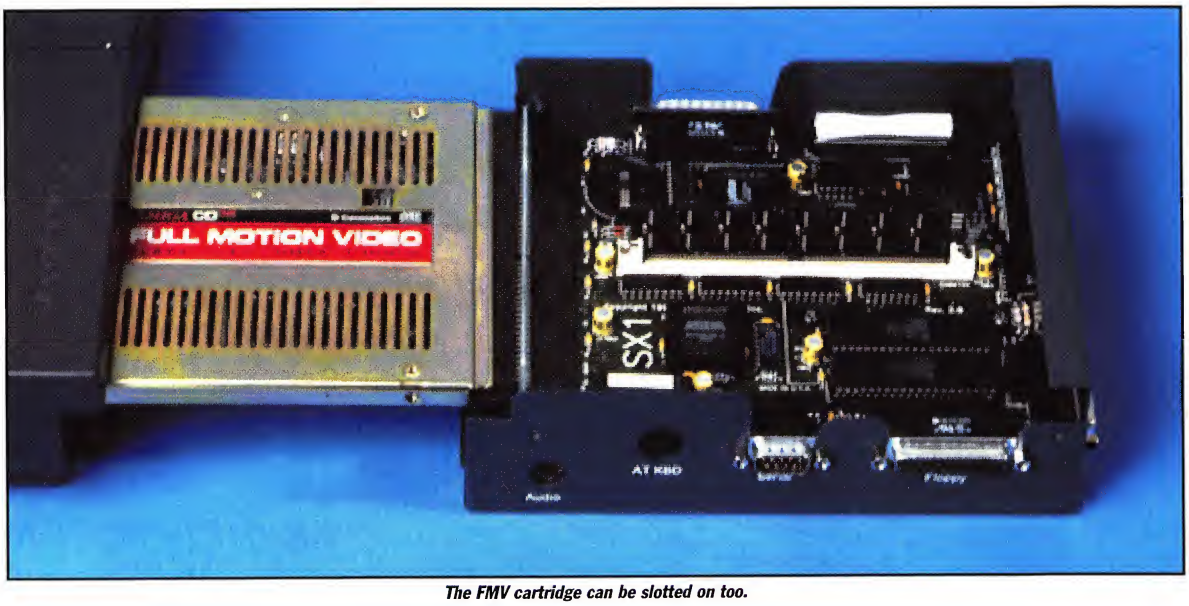
For those of you who are not rich enough to own a television with an S socket, but have an RGB input via a SCART, then you are in for a treat. The CD32 can now be connected this way via the RGB socket on the SX1. This also means you will have pin sharp pixels as opposed to a rather blurry mess that you used to get with the composite or RF outputs. This also means that the CD32 has a total of four diferent video outputs, the most surely of any computer. You could connect four TV's to it at once, if you really wanted to.

The serial port is a bit of a surprise. We were, of course, expecting a serial port but this is smaller, 16 pins smaller to be exact. The 9 pin serial port is still a standard but you are left wondering why they decided to include this 16 pin version instead of the Amiga 25 pin standard. Perhaps it was just that another full size port could not be fitted on the side of the unit.



Games continue to work without a problem.

The unusual port spec shouldn't cause a problem. It will just be necessary to make sure which type of cable will be needed when buying a modem.



The FMV cartridge can be slotted on too.

Workbench 3 running without a hitch. DFO: appears on the CD 32!

Keyboard

Another surprise was that of the keyboard connector. It looks the same as the keyboard connectors on the A3000 and A4000 but it is in fact a PC-AT connector.

The SX-1 has a special chip to allow the CD-32 to accept PC keyboards. This has pros and cons. The pros are that PC keyboards are very cheap, and easily available (just try and get hold of an Amiga keyboard!).

The cons are if you try to use the special Amiga keys, you find they aren't there! This isn't such a big problem as keyboard short cuts are a luxury, you can switch between tasks with the window gadgets, and there is a warm reset button on the CD32.

The only port we hadn't seen anywhere before was the hard drive connector at the back of the unit. This is used for attaching devices such as removable hard disks.

Conclusion

Paravision's well-engineered SX-1 really impresses. Everything works extremely efficiently and the unit appears not even to need its own power supply. The SX-1 lives up to the hopes of everyone who believed that the Amiga CD 32 deserved a better fate than just to be classed as another, somewhat better, Nintendo or Sega console. For it offers all the advantages of a 1200 plus CD and lots of power to spare for almost any application you could want, especially in the optional hard drive, memory etc configuations.

If you have a CD 32, buy an SX-1, even if you have to raid the piggybank. It will be well worth it. And if you haven't bought a CD 32 yet, the SX-1 may convince you that you should get one now. ***AUI***

RATINGS

SX-1

SPEED	90%
FEATURES	98%
PERFORMANCE	95%
VALUE FOR MONEY	88%

Overall Rating 94%

INFO

Price:
SX-1 Main Modulte: £194.99
Zappo external drive: £48.99
Black Keyboard: £45.99

Hard Drives:
120 MB £214.99
170 MB £249.99

Memory:
4 Meg £129.99
8 Meg £299.99

Contact:
Indi Direct Mail,
1 Ringway Industrial Estate,
Eastern Avenue,
Lichfield,
Staffs WS13 7SF
Tel: 0543 419999

CD For The 1200

David Taylor gets acquainted with the smart new Zappo CD drive for the A1200.

Indi have now started to sell this new CD drive for the 1200, which means that both owners of the CD 32 and the A1200 can now own very similar systems with advantages of the the expanding world of CD.

This CD drive is easy to use. Simply slide the interface into the PCMCIA slot of the A1200 and hook up the power supply. It's then just a case of linking the sound from the Amiga through the drive to your output (whether that's your monitor or you use speakers).

The software that runs the drive then needs to be installed on your hard drive or used to boot with, if you're using a floppy. I'm not overly happy with the software. One reason is that it alters your startup-sequence, which always makes me nervous. However, it hasn't caused any problems yet.

More importantly, there are programs on the disk to allow you to view Photo CDs and listen to audio CDs. The audio CD player works and multitasks, but slows the machine quite a lot and we found it glitched quite frequently. As it stands, it's OK for listening to CDs in the background as you work, but doesn't seem likely to make a real challenge your stereo. But as you will have probably paid far more for that perhaps it shouldn't be expected to.

I'm laying my bets on somebody creating a far superior CD player and placing it in the Public Domain as has happened with other players for SCSI connected CD drives. Such a program is likely to be better than the somewhat lacklustre attempt provided. It works, but it ain't that hot.

The CD drive can be used to gain access to CDs such as the great Fred Fish CDs and the other public domain CDs that are arriving. A wealth of free programs can be accessed on each disk and they've got to be attractive to serious users.

Games

I'm sure that the thing you really want to know about though is CD 32 games. If you want to run these, you need to hold down the left mouse button as you boot and click on the right option. The computer will then continue to boot from the CD drive and games can be played as you'd expect. This does mean that you may have to get hold of a CD 32 joypad if the games have been written to utilise the extra buttons.

With the undoubted demand, this drive is likely to be lapped up by A1200 users.

Because of the way the memory works, some games may refuse to run due to a lack of memory. This is easily remedied by buying more memory for the trapdoor expansion which Indi can supply.

The real dilemma is for newcomers. Do you buy the A1200 and drive or the CD 32 and SX1? Well, the 1200 option will not allow you to play video CDs; there's nowhere to put an FMV cartridge, but you can continue to expand it.

The prices are pretty similar, when all things are considered. I suppose the deciding factor has to be the FMV cartridge. Do you really need to play video CDs or are you never going to need them?

Bearing in mind that MPEG2 is going to be far superior to the glitchy MPEG1, video CD developments are continuing, and they are going to challenge VHS.

If you already have an A1200, this is the drive you've been waiting for. If not, think about your priorities. ***AUI***

RATINGS

Zappo CD-ROM

SPEED	87%
FEATURES	85%
PERFORMANCE	87%
VALUE FOR MONEY	90%

Overall Rating 88%

INFO

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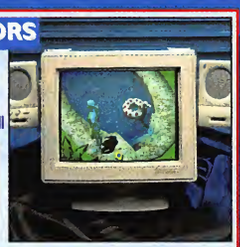

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GRAPHICALLY SPEAKING

Barry McCarthy leads the *AUI* team through an investigation into the wonders of the three dimensional Amiga world.

The many talents of the Amiga are revealed only to a few... Well, that's not quite true. It couldn't be with upwards of five million Amiga having been sold around the globe. But many - in fact most of those Amga owners have never experienced the real wonder of creativity of which it is capable. Among these known but hardly falling within the experience of most of us is 3D graphics.

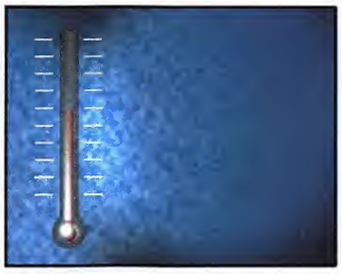
Through the 3D Tips series that has appeared regularly in AUI, some tricks of this fascinating area have been revealed. However, it is perhaps the greatest talent of all for the Amiga and certainly the one that has brought it its biggest successes in professional use. And it's probably the where most money has been made out of the Amiga too particularly in special effects for films and TV.

In Graphicaly Speaking, this major AUI investigation into the 3D world of the Amiga, you can see how the same, relatively humble machine that sits on your desk is also the hotted up one that can help professionals and you yourself enter a magic world that, if you are prepared to spend the time - and can find the money - can bring you the delights of creativity and possibly satifying profits too.

CONTENTS

Meet 3D

Using It



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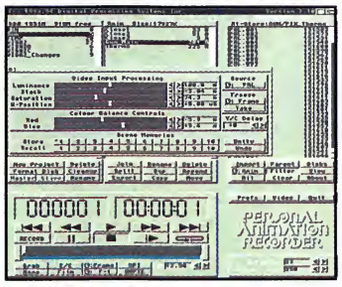
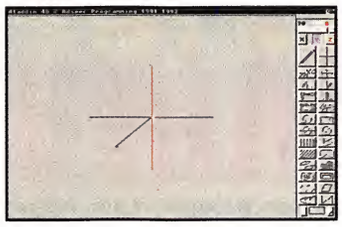


Needs and Costs
Soft Competition



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3Meet

3D should really be the most natural way of creating art. After all, the world we live in is three-dimensional. We experience everything around us using our three-dimensional senses. Yes, we really have got 3D senses. EXCELLENT! Both of our eyes can see individually in 2D (width and height) but in combination, they then judge the third dimension (depth). I know many of you are going to disagree with me here but just try playing Badminton with one eye covered. It's the combining of two views of the same thing from slightly different angles that gives us our excellent sense of depth. We feel things in 3D and we hear in 3D. Mind you, I can't quite get to grips with the concept of 3D taste or smell..yet.

Anyway, I assert it 'should' be the most natural way of creating art but unfortunately, we don't yet possess 3D monitors. As far as creating 3D on a two dimensional surface is concerned, you have to develop a system that simulates 3D. This is what artists have been doing for hundreds of years, since Renaissance times, with perspective. They came up with many techniques that were intended to fool the eye into thinking it was seeing depth, when that was obviously not possible on a two dimensional surface. You can only ever see width and height. Any sense of depth is a complete illusion. There is even a technique called trompe l'oeil - meaning "tricking the eye" in which painters create things like windows that don't exist but make you think that you are looking through them. Illusions . . . whether we realise it or not we are all taken in sometimes.

Perspective is the device that is generally used to create the illusion of depth. As things get further away, they get smaller. Roads and rivers get thinner, fence posts get closer together...

Aerial Perspective is very different. This is essentially the amount of air between the viewer and the object. As you may have noticed, air is very thin but it's not non-existent. If you have enough of it, it starts to get in the way. Things go hazy the further away they are. Think of mountains.

Colour temperature is the hot or cold quality of a particular colour. It's really not so easy to explain and starts to get a bit more esoteric.. If colours are generally 'cold' (such as cool and deep blues, deep blood reds and Burgundies, cold, white-yellows and bluey greens), then they appear deeper and more distant. Conversely, if they are 'warm' colours (such as fire red and orange, bright, sun-drenched grass green or intense sky-blue), then they will seem closer and more immediate.

Unfortunately, we don't yet possess 3D monitors.

So how can we move around in 3 dimensions, on a flat 2D screen? There are several ways of achieving this, and the question as to which one is best, does become a little personal. The most traditional, if I can call it that, approaches what is known as the 'Tri-View'. This is squarely based upon the draughtsman's approach to showing all aspects of a design in a drawing. You essentially have 3 main views of the object; top, front and side. By keeping an eye on all of these views, as you draw or move points and lines, you can build up most objects quite easily. A further help is a 4th, combined view. This is usually a bit like a camera view, which can move around and view the creation from any angle.

Three Views

If you remember back to co-ordinates at school, you'll probably remember

As you draw or move points and lines, you can build up most objects quite easily.

X across and Y up. In 3D, you have the third axis called Z, giving every point X, Y and Z co-ordinates (except Imagine of course, which has them a different way round!). It sound a bit mathematical but it's learnt very quickly and if the software is really good, most of the time you'll never notice them.

If your software doesn't take the tri-view approach, with three screens and a camera view, then it may take a more 'virtual' approach. In this way, you tend to have only one view, which is either the actual camera view or an alternative 'virtual camera', that can roam and zoom all over the place. Real 3D, Caligari, LightWave and Aladdin all take this approach, to some degree or another. Often, you'll find that the tri-views are still available if you need them. They're very good for accurate placement of objects or points. A nice combination of these is to have a tri-view modeller and a single camera view animator.

Modelling

Modelling comes in several flavours also. Essentially, there are two main types; CSG or Constructive Solid Geometry and Vertex modelling.

Don't worry about the maths, the program takes care of all that.

Taking vertex first, a vertex is a point that represents theintersection of several lines. So, if you draw lines in the modeller, to form closed shapes, like triangles and squares, they then become surfaces. This is how you construct all your models.

In CSG modelling, you start with a collection of 'primitive' objects, that are all perfectly smooth. A sphere is created using a mathematical equation that describes the shape of the sphere. Don't worry about the maths, the program takes care of all that. Real 3D is the program that has really pioneered this relatively new approach.

Both techniques have advantages and disadvantages and it would be nice to see someone combine them in some way.

Snazzy logos a speciality.

Using It - Profitably

OK, so you've got an idea of what 3D graphics are. Now what do you want to do with them?

Well, there are quite a lot of diverse uses for 3D graphics. When I say uses, I mean REAL uses. Reasons why people would want to give you money for something. And for all you 'real' artists out there, who are tutting to my materialistic, capitalistic attitude to such a noble art-form, I would say "Do what you have to do, so you can do what you want to do." 3D is an expensive business and only people who successfully robbed a bank and got away with it or have a rich uncle who provides them with a juicy private income can afford to be so pure about it and not think about its cost. But I'll get on to the cost in a bit.

PROCESSES

For the uninitiated, I'll give you a very quick run down of the processes involved in the production of an animation;

First plan the animation and make a few drawings and designs ON PAPER. Try creating a story-board, to plan the actual movement of objects, camera and lights. Planning really pays off later.

Now start building some models. If you planned the project well, you'll have a good idea of what the models should look like and how much detail they'll need. This depends to a large extent on how close they get to the camera and how they are lit.

Once you have some basic models it's probably best to start developing the animation. Animating is a lot quicker when you only have simple models to move around. Try to get into the habit of creating 'stand ins' for complex models, when all you're trying to do is get the movement right.

Next, you'll have to start getting the surface textures and colours looking right and play with lighting effects. This is where an animation will either succeed or fail. Lighting is so important and should have a large chunk of your time devoted to it.

Finally, test render lots of frames, without anti-aliasing and perhaps in a slightly lower-than-final resolution. The more frames you test, the less likely it is that you will make mistakes.

Now you're ready to render the final animation and record it to type. Get your secretary to send off the final invoice and start hassling the client to pay it!

Animation - Logos

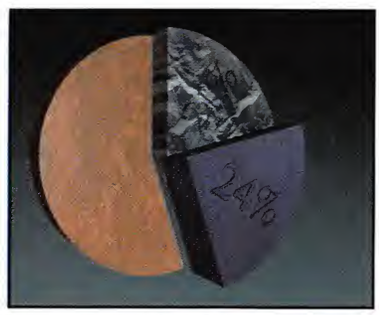
Animations of logos for video or broadcast. It might be the video company's logo or it might be the logo of the company who commissioned the production (or both if you're lucky). This is real 'bread and butter' work. It provides a fairly constant trickle of income from reasonably undemanding work. Lots of people say it's boring but you can inject a degree of creativity and it does pay the bills. All you need is software that's quick and efficient.

Animation - Creative

Animations for spicing up productions. This covers a whole host of possibilities. These are often the more fun things that can be done. There is more room for creativity and sometimes more flexibility in the budget.

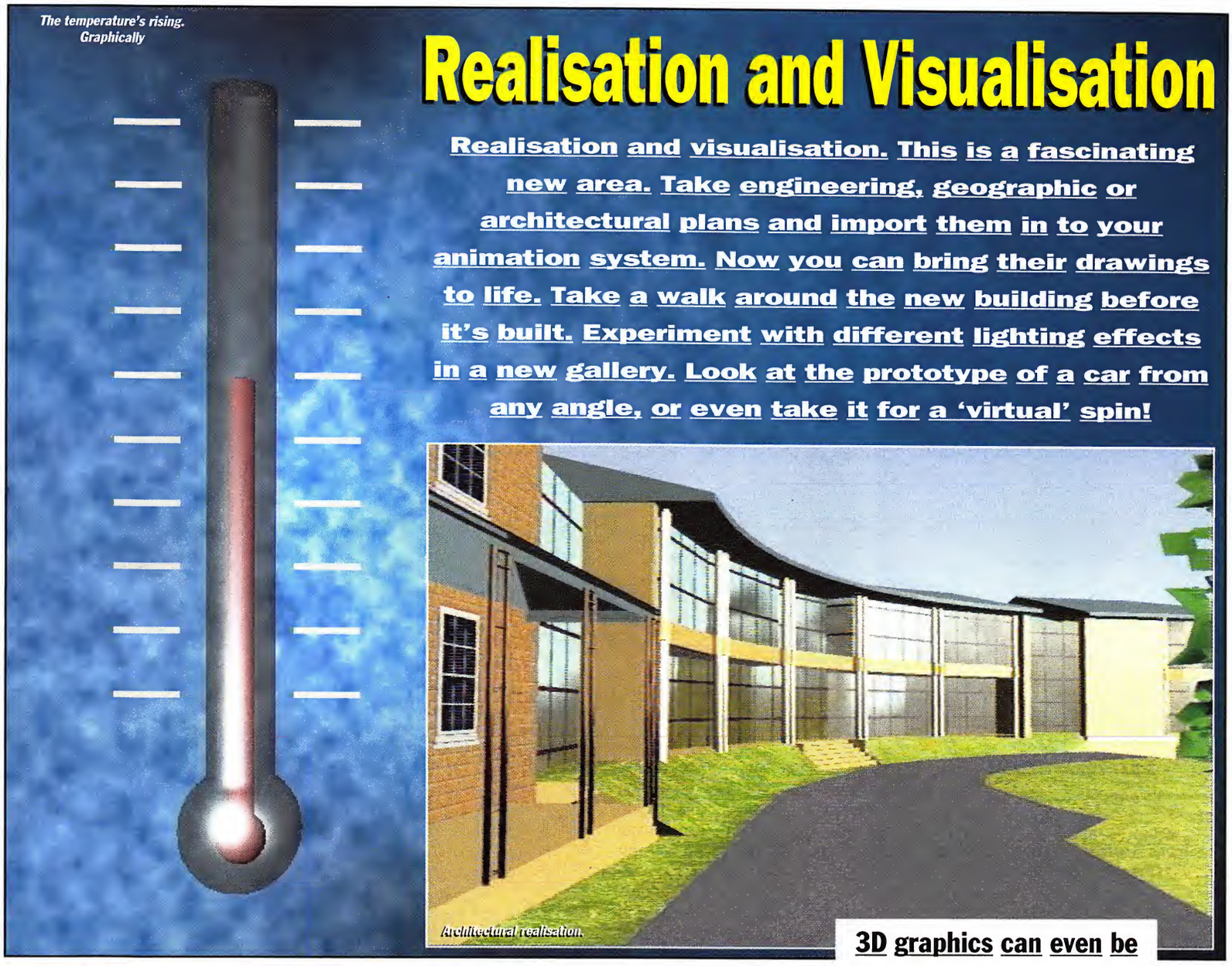
Statistical Displays

Statistical displays. You see this sort of thing all the time on TV, especially on the news. Have a look next time and see how they represent statistics and information. Yeah, dudy 3D, mixed with photos and live footage. Lots of sexy polished marble and subtle reflections and shadows. Graphs are in sexy 3D and so are pie charts. Even maps have gone the 3D route. Everything from zooming into the relevant part of a spinning globe to flying along an undulating portion of Libya etc. It's definitely easier to understand data if someone shows you some pictures of it. Of course, people get bored with seeing the same old pictures, so you have to keep spicing it up and making it more and more impressive. Otherwise people simply won't notice it.



Zap up that data.

"Go ahead punk... "



Realisation and Visualisation

Realisation and visualisation. This is a fascinating new area. Take engineering, geographic or architectural plans and import them in to your animation system. Now you can bring their drawings to life. Take a walk around the new building before it's built. Experiment with different lighting effects in a new gallery. Look at the prototype of a car from any angle, or even take it for a 'virtual' spin!

Architectural realisation.

3D graphics can even be output to slides, overheads and posters.

Simulation

A nasty simulation.

Simulation. Not really suited to physically accurate, true simulations but it's certainly handy to show what's going on and how things work. It's a lot cheaper that building an actual model.

Presentation

Presentation. This can include some or all of the above as well as a whole host of snazzy extra bits to jazz it all up. A good example might be a conference opener. Stick a suit on a podium to deliver a long speech, after which everyone can go and get coffee, biccies and expenses forms. Er, no. Try starting the conference off with a 20 foot screen, running a sophisticated animation, set to music and complete with sound effects and fan fares. NOW you've got their attention. 3D graphics can even be output to slides, overheads and posters.

PROFESSIONAL 3D

No, I don't want you to write in and complain that your idea of PAL is slightly different from mine.

What I would like is for the next sentence to fill the page entirely.

The Amiga is the best graphics computer in its class.

Now try telling your client that you're using an Amiga for his or her animation. Ha ha ha. So why is that?

Commodore destroyed the marketing or simply DIDN'T market it. Also, they never really had the funds to push the development at a fast enough rate. Did you know that the Amiga WAS the most advanced PC in the world at one time? It was years ahead of the rivals but simply sat around and waited to be overtaken. People see the Amiga as a toy. Good at games but not to be taken seriously. It's wrong but if enough people keep saying it for long enough, it'll soon turn out to be true.

If the new owners and managers of the Amiga, market it as the ultimate graphics, video, music and multi-media work-station. If the next big Amiga is advertised now and comes out by the end of 94. If the A1200 comes out with a CD drive built in. If the CD drive is included in A3000s and A4000s. If the new big Amiga is quicker than a Pentium and includes just as much at a similar price. Give all the magazines an Amiga with a PAR card, Studio16, Bars and Pipes Pro, Scala, LightWave, Brilliance, a PAL Toaster and PageStream 3. SOLD. You've now conquered the vertical markets where the Amiga SHOULD already be. Yes, it takes a lot of money and a few risks but that's what Mac and IBM are busy doing... If the Amiga isn't marketed and developed aggressively over the next year then it WILL die even in graphics.. Sad but inevitable. We wait with baited breath. (Is the hellfire sermon over? Can we get on with the graphics bit now? ED)

Difference

So what IS the difference between hobby and professional?

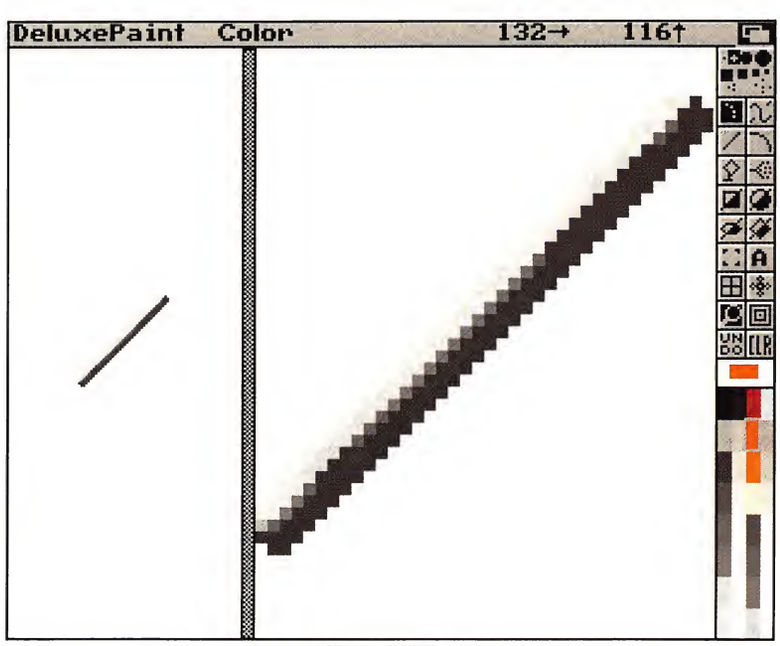
Professional level 3D is a costly business. There are a few very good reasons. The first restriction you're likely to come across is the output resolution. By this I don't just mean the physical, pixel resolution of the screen, I also mean the speed at which the animation runs and the number of colours it's displayed in.

Take the physical, pixel resolution first. If you're going down to video tape, then there's no point in going any higher than standard PAL. PAL is the television standard used in the UK. The USA use another standard called NTSC. Then there's SECAM, HDTV... The usual mess of incompatabilities. Anyway, our PAL standard has a resolution for digital output of 752 x 576. No, I don't want you to write in and complain that your idea of PAL is slightly different from mine. So, that's the resolution that your animation needs to be in.

Anti-Aliasing

The next consideration is the pixels themselves. The trouble with pixels is that they are square (oh for God's sake, I know they're not ACTUALLY square but for the sake of argument...). That means they've got nasty sharp corners, so when you put them in a long line, they look like steps. This does not appear very professional, so let's do something about it. What we do is to Anti-alias them. This entails adding several layers of gradually changing colours next to the original pixels. Luckily, of course, it's all handled automatically by the software. Unluckily, it requires more computing power and more time, the better the anti-aliasing routine. BUT, I can't stress this enough;

ANTI-ALIASING IS VERY VERY VERY IMPORTANT.



Alias anti-aliasing.

True Colour

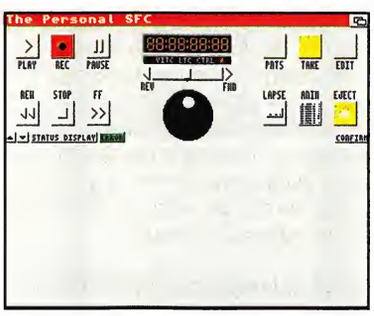
Your software simply MUST be good at it. It's just one of those things that will make or break your output quality, as far as the client is concerned.

Next comes colour. We're talking 'true colour' here. This is a phrase that essentially describes the limit of the human eye's perception of changes in colour. If you put two colours next to each other, they are so close that to us, they look the same. In practical terms, this is 24 bit colour, or 16.7 million available colours. Each colour could be on the screen at the same time. Actually only 433,152 colours could be on a PAL screen at any one time, but you know what I mean.

So how DO you get it to go that fast? There are only two choices.

Speed

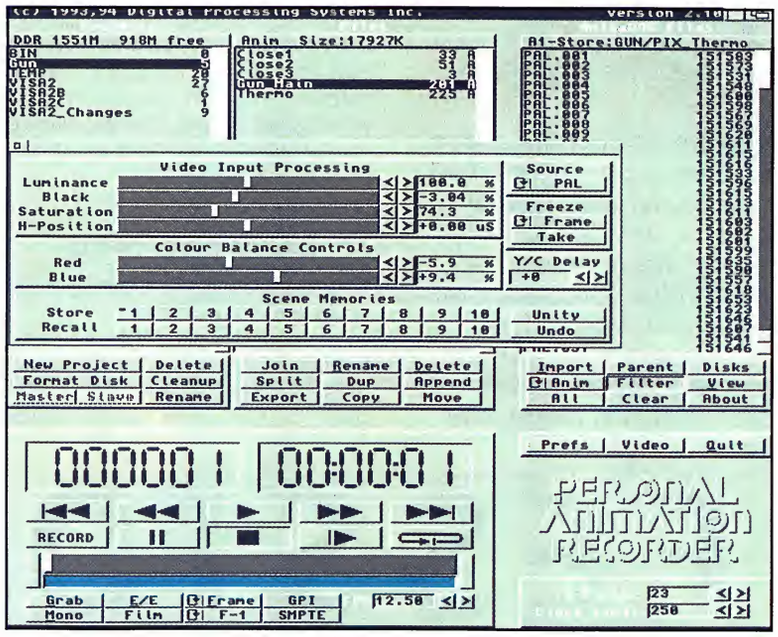
Finally, we've got the speed to consider. It's no good expecting your humble Amiga to churn out animations at 25 frames a second, especially at PAL resolution and in 16 million colours. I think it'll be a while before we see that on a PC (by the way, PC stands for Personal Computer, which is what the Amiga is, and the Mac and the PC. Well, you know what I mean). So how DO you get it to go that fast? There are only two choices. Either using a frame controller or a digital video recorder.



The personal frame controller

Frame Control

A frame controller is a piece of software and a serial cable. Plug the cable between the video recorder and the computer. The software will now communicate with the video recorder, diplaying each frame of the animation one at a time and then editing them nto tape. One edit at a time. This is a very lengthy process. Each edit takes around 10 seconds but this is increased to around 30 seconds if your images are JPEGed. And that's the other problem. To record an animation to tape, you must first render it and store all the frames on a hard drive. A single PAL frame can be around 1 megabyte in size, so a 30 second animation would take up around 750 megabytes. You can JPEG the frames but they have to be at the highest quality setting, or the final tape quality will suffer. The other problem is the video recorder itself. A professional level recorder can set you back at least £5000. Not only that but it must be an Edit recorder, because each frame has to be edited individually.So the better choice is a digital video recorder. This is a piece of complex hardware that acts like a video recorder but is in fact, just a large hard drive with some other bit bolted on. As a frame of animation is rendered, it can be passed to the DVR. When you want to put the finished animation on to tape, just connect the DVR to a video recorder press record and then press play on the DVR. A 30 second animation takes 30 seconds to record to tape. This means much cheaper recorder hire.



The PAR; the best thing in my Amiga.

Output has to include options for field rendering, motion blur and soft shadows.

Another major factor is speed. Very often, jobs need to be completed pretty quickly, so the faster your rendering is, the better. If one computer just isn't fast enough, then you'll need several and that means networking.

Software

Finally we get to the software. It has to be quick and it ought to be reasonably intuitive. You should be able to make changes to an animation, with the client looking over your shoulder. Anti-aliasing must be excellent. Output has to include options for field rendering, motion blur and soft shadows.

Field Rendering means this...I don't know if you've noticed, but interlaced screens, like PAL, flicker a lot. By the way, you must use an interlaced screen or force interlace if you're going on to video tape. Otherwise the video image won't be stable. Trust me on this, it's true. Back to the field rendering thing. If you freeze a single frame of video, it will also flicker. This is because each FRAME of video is made up of 2 separate fields. The two fields are arranged one horizontal line at a time. One line of FIELD 1 then one line of FIELD 2 then 1 then 2, 1, 2, 1, 2... until you get to the bottom of the screen. Now, because each field is an entirely separate image, slightly different from the last, when you look at one FRAME of video, you are actually looking at 2 different pictures at the same time (each one 1/50 th of a second away from the last). That's what makes video look so smooth and that's what makes computer animation look so jerky, unless... you've got field rendering. This rendering technique moves all your objects, lights and camera 50 times a second and then puts them together as one frame of animation. And the result? Animations that are silky smooth and very sexy. Now they don't run at 25 frames a second, they run at 50 fields a second. I'm sorry I've warbled on so much here but it's a very important point and your software has just gotta have it.

3D animation needs as much money - sorry - memory as possible.

Needs and Costs

First of all be very aware that this is probably THE most expensive area of personal computing. Most areas need mainly one specific resource, such as loads of memory or a big hard drive.

3D animation needs as much money - sorry - memory as possible, the biggest hard drive you can lay your hands on, the fastest computer in production and a very expensive video recorder.

Here's the shopping list

What?	Approx. Cost
An Amiga with a full spec 040	£2000
Between 8 and 20 megabytes of 60 nanosecond RAM	£1000
A frame controller	£400
or A PAR card and drive (preferable)	£2000
A 500 MB + hard drive	£500
A 24 bit display card	£350
3D animation software	£500
3D object and 2D conversion software	£200
Lots of Postscript fonts	£100
Lots of objects and textures	£100
Image conversion software	£150
Total for a basic animation system	**£7300+**

I know, it's a lot of money but that's the way it is. Your main priorities are speed of the processor and the amount of memory. Unfortunately there are not many of them that you can eliminate. Sorry.

Soft Competition

So what's the most important piece in the 3D computer puzzle? Well actually it's the user. So let's look at the second most important: the software.

The software you use will determine, to a large extent, what you are capable of doing and how quickly you can get it done.

There is a lot of choice but is there really only one choice? Does one piece of 3D software do everything

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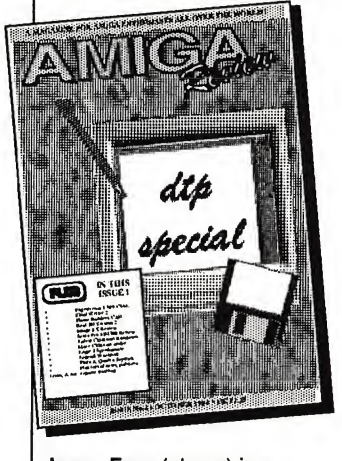

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and does it do it quicker and easier than the others? It would be FAB if there really was only one choice. No more buying all the different 3D programs just to combine their relative merits. So is there? Let's see...

Contenders

Caligari 3, Aladdin 4D 3, Real 3D 2.5, Imagine 3 and LightWave 3.5.

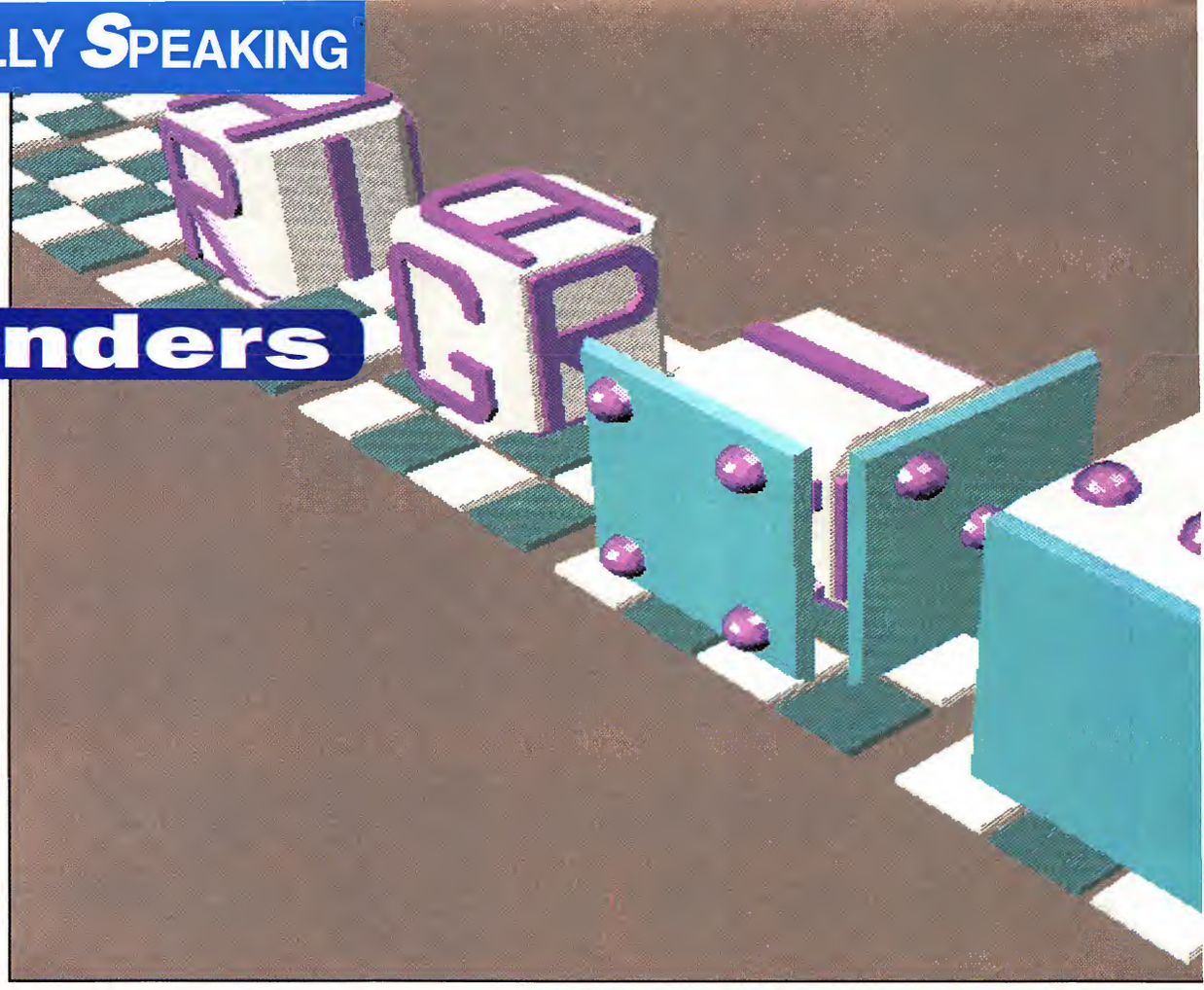
And in the eliminators...

Caligari 3

Well, we can get rid of Caligari immediately because guess what, they've stopped producing for the Amiga! Oh no, doom, doom, doom. Actually, I don't think so. Caligari has now been completely overtaken by other products in the Amiga market and because the market is so small, only the best products will survive. It's quite good to be small in some ways (well, one actually, and that's it). Caligari will now go to the PC market, together with Real 3D, Imagine and probably LightWave soon.

Anyway, we can have a quick look at the interface, which was always its major strength. Wave goodbye to Caligari everyone. Bye.

(NOTE: This information was obtained from a reputable UK distributor, who will not be distributing Caligari any longer. It was not obtained directly from the manufacturers of Caligari.(So if it's wrong, Roman, forgive me! I'm just an artist I leave it to the Editor to do the checking!) (Oh thank you very much.! ED.)



Bye bye Caligari.

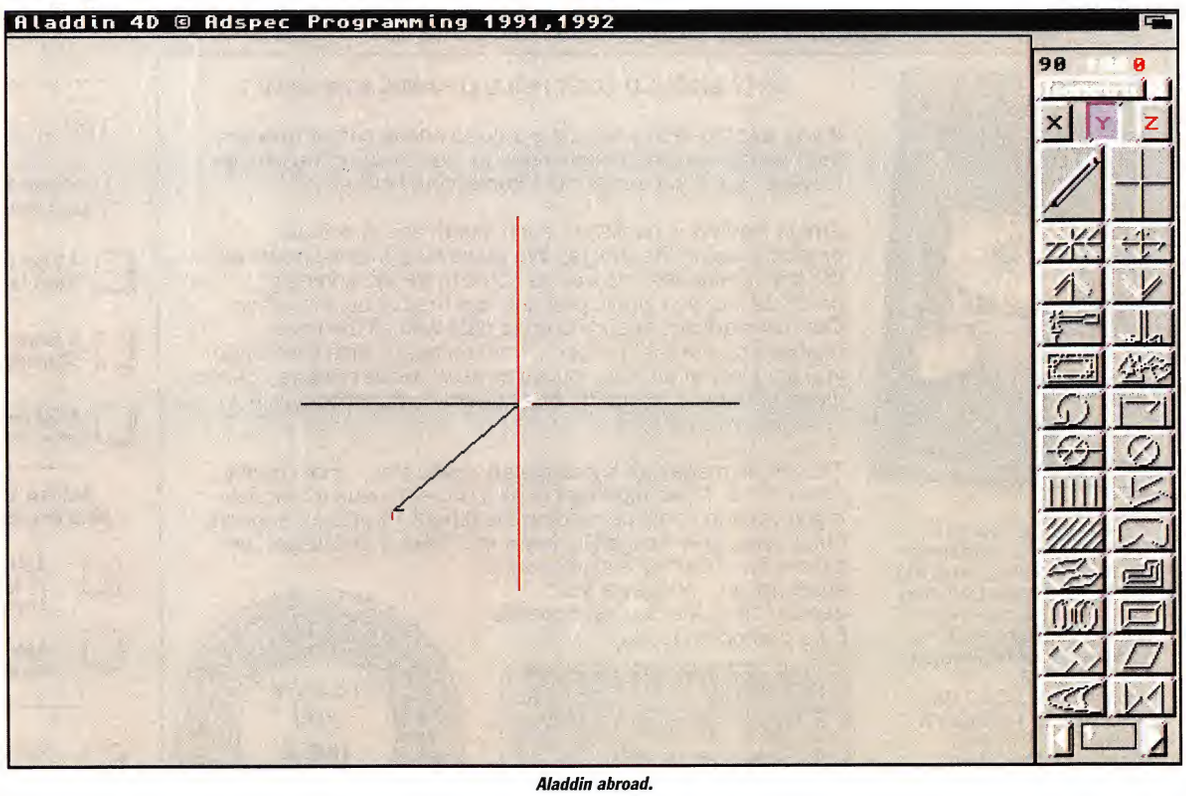
Aladdin 4D

Hmm, it's not exactly an easy program to get hold of in the UK. Most people seem to have dropped it. Still, let's give it a mention anyway, because, as far as we're aware, it is still being worked on in the USA.

Every time anything gets upgraded, all you do is replace the 'bits'.

Aladdin has been around for quite a while, one way or another. It used to be called Draw 4D and Draw 4D Pro. It consists of a single screen interface, for both modelling and animation. In order to move around your creation, you use a sort of virtual camera. If this gets confusing or lacks accuracy, you can also switch to flat views along X, Y or Z. The menus hold a mass of functions, including a great number of the old 'plug-in external modules'. What a sexy name for making software easier to program. What it means is that each of its separate functions like bend and twist are, well, separate. Like little programs of their own. Every time anything gets upgraded, all you do is replace the 'bits', sorry, I mean, all you do is replace the 'plug-in external modules'. WOW! I love my 'plug-in external modules'. Mmmmmm. Aladdin's top advantages are its effects, such as extensive ripples, gases, lens flares and distortions. These can really be very impressive, although they are not exactly easy to set up.

In fact, that's the main criticism I'd level at the program; it's too difficult to get into. The interface is a nice idea but often just ends up being awkward and more often than not, gets in the way of creation. Hey, but the effects really are really good. So, due to an apparent complete lack of support in the UK, I've decided to eliminate Aladdin as well. Sorry boys, but if you want your baby to sell to us Limies, then you're really going to have to get just a bit nearer than Ohio. I don't mind nipping into London to pick up electronic supplies, but that's just too far, man.



Aladdin abroad.

Three

So, that leaves just 3 major contenders. That makes your job easier and it makes my job easier too. Here we go, which is the best? Imagine, Real 3D or LightWave? And the answer is, Imagine. Only joking, or am I? Well, I'm obviously not going to tell you yet am I? You'll have to wait till the end. Or I suppose you could just go to the end now but then you'd miss all the fun that you could have on the way.

Imagine 3

Imagine is the oldest of the three, having been developed from a program called Silver and then Turbo Silver. Turbo Silver was quite a ground breaking product at the time. It was one of the first to support brush mapping on objects, for instance. Unfortunately the interface was a complete nightmare to use. Then it all got re-packaged and re-programmed as Imagine. To be honest, it wasn't that much different but the interface WAS easier to use. Its main problem was that it was full of bugs. Then came version 2. Bugs all gone then? Nope. Mind you, the interface was definitely getting better and things looked good for the future... Imagine 3 was round the corner and this was going to be a major re-write. All the vital missing tools and effects were going to be added and the interface would benefit from a whole heap of changes.

Unfortunately the interface was a complete nightmare to use.

So here it is, after a ridiculous amount of waiting (I think I've been promised it for nearly 2 years). And... Same interface, same requesters, same bugs, same problems all round. I'm not saying it's not got anything new in it. It's got loads of new tools and clever things that it can do. Unfortunately, that was never really the problem. I look at this from a 3D animator's view point (not a big surprise really, seeing as I am, and seeing as that's the job of the software). What I'm looking for is a professional piece of software, that does it's job quickly and efficiently. A useful manual, lots of bits and pieces to make getting started easier and day to day animating less of achore. An interface that lets you access the power of the program as quickly and intuitively as possible, so that, you hardly even notice it. Lastly, a collection of modelling and animating tools that are genuinely useful.

Imagine 3's snazzy startup/coverup.

Imagine fails on several of these areas. There are STILL bugs and some of them are the SAME bugs from version 1.0. Hey but some of them are NEW ones! That is totally inexcusable in a program that has gone into its fifth generation. The interface has hardly changed at all from 2.0. There are some improvements but they have come too late and in too small a quantity. They're trying to mend an interface that really needs redesigning. What they should do, is get an animator, who does it for a living, to help them with their product. *(Can I recommend anyone? ED.)*

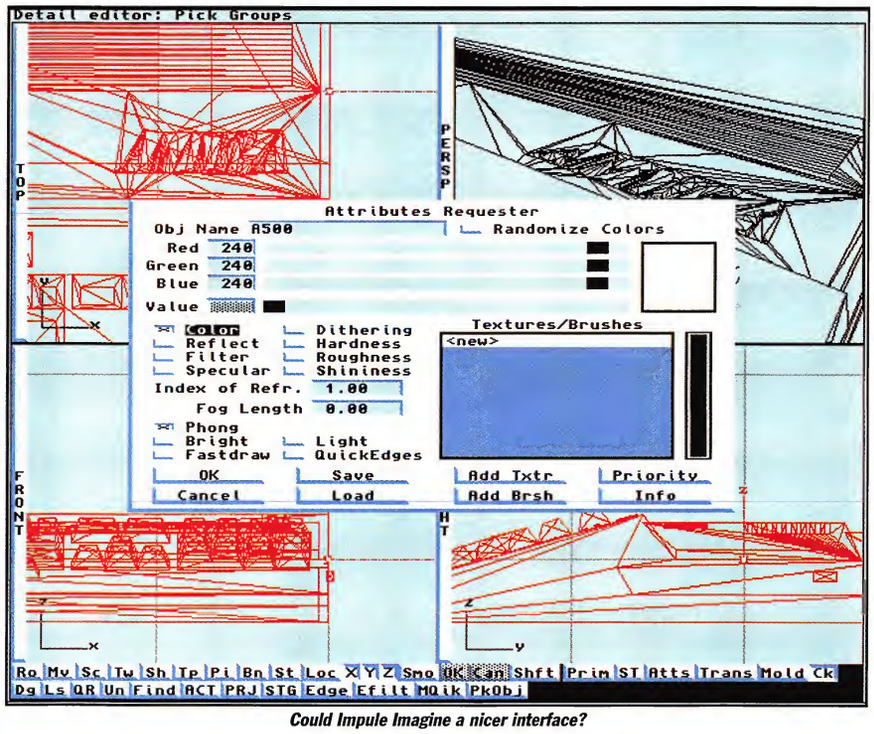
There are too many clever tools that simply end up never being used, because I don't think anyone really thought about what they were really for in the first place. You get the feeling that they just said "Hey, that would be really neat!" and bunged it in somewhere. Yeah, somewhere. Talk about over crowded menus. Take a look at Deluxe Paint III. The reason it was such an amazing program was because it seems, on the surface, to be really simple but the more you learn it, the more it reveals to you. The program grows with you. This is what's known as an intuitive interface. Everything is where you would expect it to be. All the tools do the jobs you would imagine they would do, in the way you might expect them to do it.

There is no reason why a 3D program shouldn't work in a similar way. People seem to think that it ought to be complicated. For goodness sake, it's only one more dimension.

Don't get me wrong, I loved Imagine for a long time, as anyone who's read my 3D Tips will know. So this pains me more than most. I feel almost let down by Impulse. It really is the end of an era for me. In one day, I realised that I was never going to use Imagine again. Very sad.

Mind you, all is not yet lost. There are a lot more changes to Imagine promised and the next major one, is supposedly a new interface. I absolutely refuse to wait around for it, so if it does ever happen it might be a nice surprise.

For now though, I'm dropping Imagine 3.



Could Impule Imagine a nicer interface?

And Then There Were Two . . .

Right then, nice and simple now, just two programs left. Let's take a look at LightWave 3D 3.5 PAL. There is a very good reason why I'm looking at LightWave, before Real 3D. It has something to do with interfaces and a lot to do with philosophy. Read on.

LightWave 3D 3.5 PAL

Finally (why do so many things take so long, so I have to keep saying "finally"?), NewTek have graced our shores with their much hyped and sought after 3D program. It was the one with the biggest dongle in history, namely the Toaster,

LightWave takes all the good things from other programs and combines them with a beautifully intuitive interface.

as it wouldn't run with out one. That also meant no PAL LightWave because there was no PAL Toaster.

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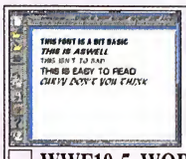

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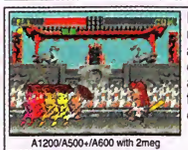

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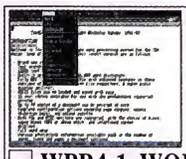

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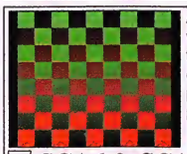

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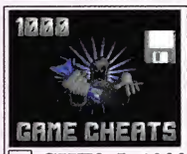

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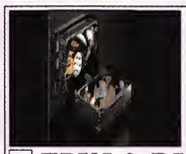

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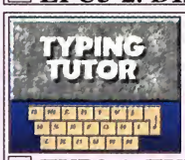

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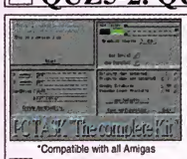

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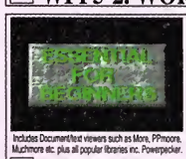

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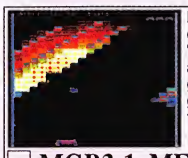

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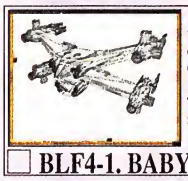

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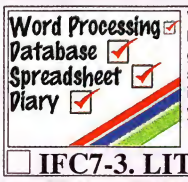

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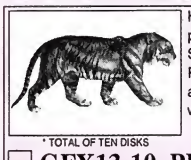

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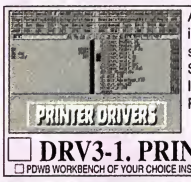

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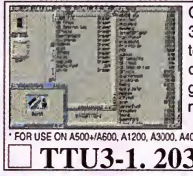

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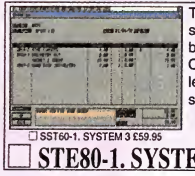

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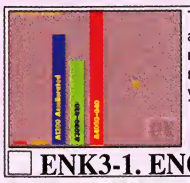

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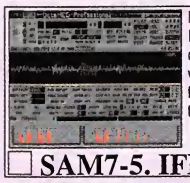

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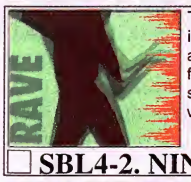

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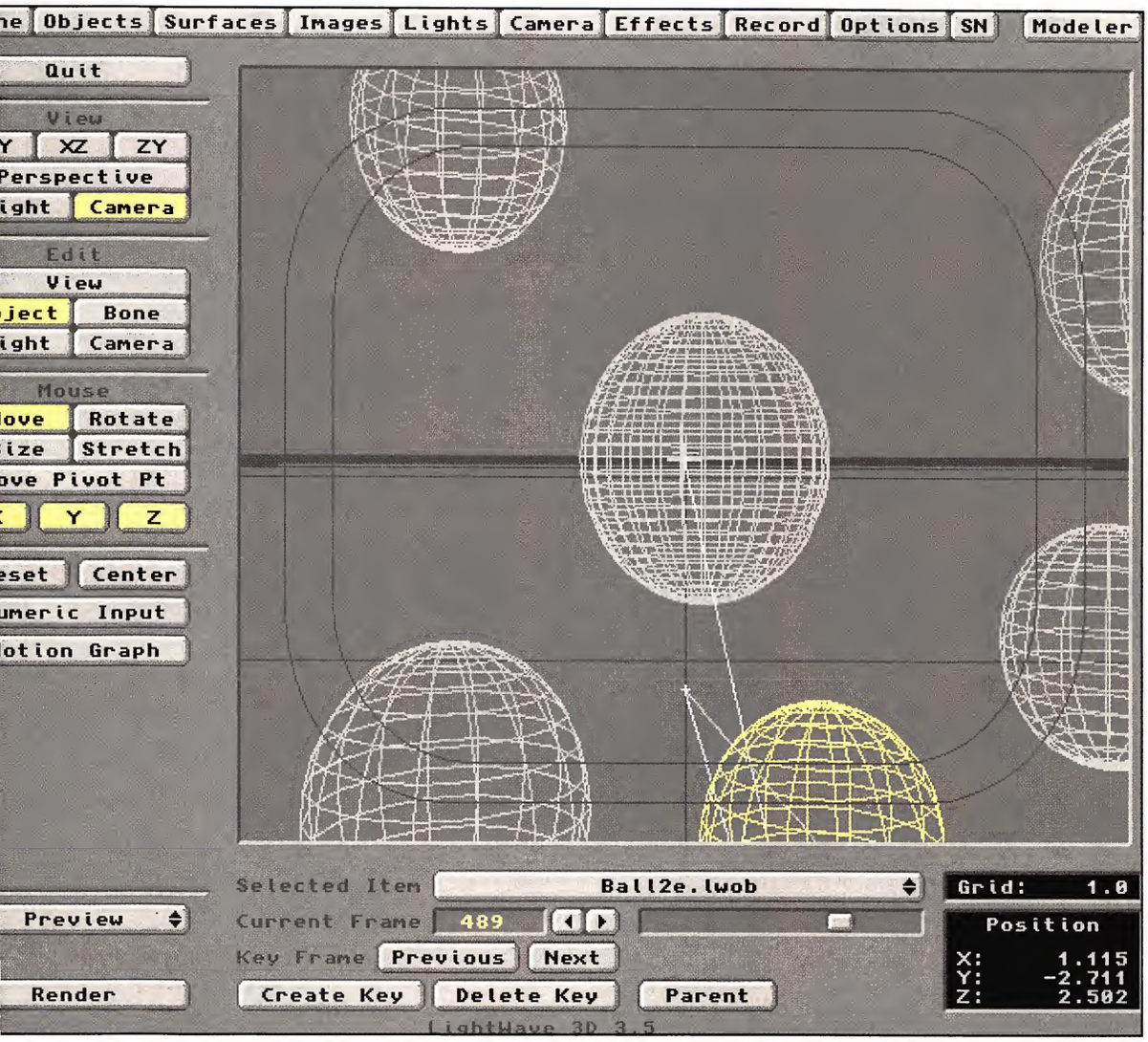


LightWave's our new PAL

Now it's here. Is the hype justified or IS it hype? Well, you probably know what I'm going to say. How could so many people all be wrong? They couldn't and they're not.

LightWave takes all the good things from other programs and combines them with a beautifully intuitive interface. It has the tri-view modeller of Imagine, the animation window of Caligari and the interface of Deluxe Paint.

LightWave is designed to create animations in a quick and efficient manner, day in and day out and that is what it excels at. It can still become a more complex and involved tool when necesary, although it doesn't even get close to Real 3D 2 in terms of sheer power and flexibility.

LightWave is what I've always wanted a 3D program to be like. Everything works like you want it to. It's designed so well for its job. Unlike other programs, there are few, if any, redundant tools and effects, everything really is useful. And you're not given a mass of bewildering choices right up front. As you learn LightWave, it gradually opens up its secrets to you, when they are needed.

The new PAL version, is essentially LightWave 3.1 with a few small changes to make it into 3.5. The screen is now PAL size and it will render directly to a few display devices, using plug-in modules. More should be supported soon.

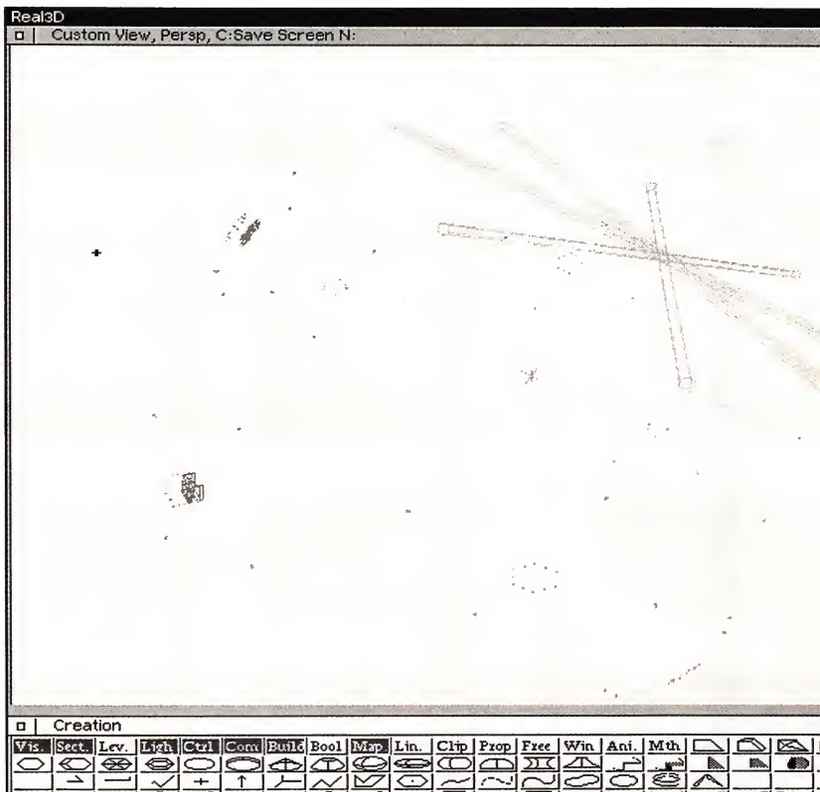
In the box, you get the 3.1 manual (complete with Toaster references), a 3.5 Addendum, 7 disks and an excellent tutorial video by a superb bloke called Lee Stranahan. He is a very wise and sound chap with an excellent sense of humour and I recommend that you watch the video before you get too stuck into LightWave. He will actually stop you developing bad habits and he's not adverse to criticising the program when necesary.

LightWave is not perfect. It is a little odd when you're trying to rotate and move things in certain situations (gimble lock, it's called!). It does have a few bugs and far too many bits in the software that are left over from the Toaster. But NewTek listen to their public and they design for them. If something is unpopular it will most likely be removed and if something new is needed, you can expect it to be included very soon. Look out for LightWave 4 by the end of 94, it should be pretty stunning.

Real 3D 2.49

When I first saw Real 3D, I thought, "at last, someone has come up with a decent 3D interface and a slick and professional renderer". It was so easy to use and seemed to be the fastest rendering engine on the market. But when I started to use it for professional work, I found the program difficult to use as a modeller and limiting for animation editing. My conclusion was that it was a great program to learn 3D on but too limited to use in professional work. This was a personal feeling, as I know many people (such as Alternative Image), who have been using Real professionally for years.

Then information about a major re-write in version 2, started leaking out and it sounded pretty amazing; soft shadows, depth of field, motion blur, unlimited textures, field rendering, collision detection, particle system and behavioural animation. It sounded too good to be true. When it finally did arrive, to give them their credit, the programmers really had included ALL those promises. Real 3D 2 was, by far, the most advanced and complex animation system on the Amiga. And that's where it started to cause problems for me. It seemed like a case of "nice program, shame about the interface". Where had the wonderfully user-friendly interface of version 1 gone? Why hadn't they built on this ? Perhaps it may help to understand their intentions and the general ethos behind Real 3D...



Real 3D 2 with an organised interface

Real 3D

Andy at Activa UK writes in defence:

Real 3D has always received luke warm reviews from the UK Amiga press but that doesn't come as such a great surpise to me. Real has more in common with SGI (Silicone Graphics) software than other Amiga 3D packages.

When it gets reviewed it gets compared to the accepted standards of the 'traditional' way of doing things, in other words, techniques that appeared on the Amiga several years after the big boys of 3D started using them. Real 3D has ignored most of these 'traditions'. Instead the programmers chose their own route to 3D heaven. Why? Well, before I answer, I think now is a good point to say that this is my answer, not Realsoft's or Activa's. It's my conclusion after working as a beta tester for a year and using the program for nearly four.

Realsoft found a better way of doing things, they weren't content with just following the crowd and put some effort into moving Amiga graphics a few rungs up the 3D ladder. Almost every other desktop 3D program on Amiga, PC, and Mac uses freeform surfaces based on polygons. That is, the objects are built from small triangles that are shaded to look smooth. This technique has been around longer than the Amiga. The world we live in isn't made that way, so why change that for computers? Real 3D has three ways of building objects. Phong shaded polygonal meshes (the trad-itional way), Cubic B-splines, and Con-structive Solid Geo-metry (CSG).

B-splines brought the T-Rex to life in Jurassic Park, they aren't made up from triangles or shaded to look smooth. They are defined using formulas for a curve. The difference between b-splines and poly based surfaces, is the same as that for bitmapped and vector graphics.

CSG is based upon a set of primative objects such as polyhedrons, cubes, and spheres. Again CSG is based on mathematical formulas for the objects. These primatives can be combined or cut to build up more complex objects.

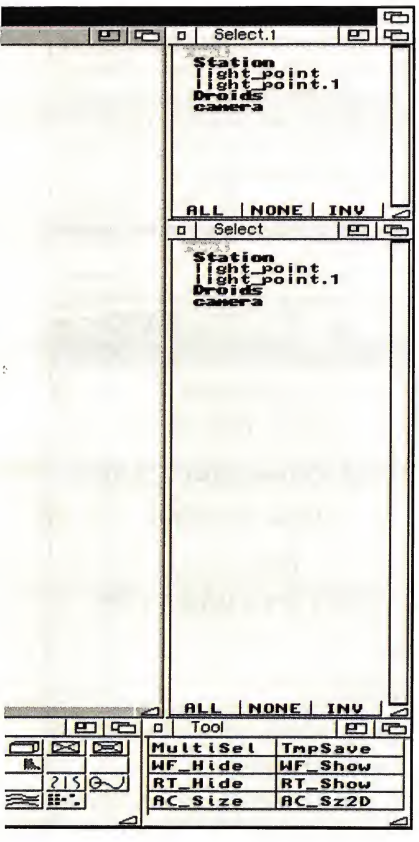
CSG and B-splines go hand in hand. CSG is good for sci-fi or mechanical objects and B-splines for anything organic. They both render to an extremely high quality and this is the main priority for Real 3D. The picture shows the same object rendered as a B-spline and a phong shaded polygonal mesh. The B-spline took increased the render time by around 25% but the added quality is worth the wait. Anyone who wants speed rather than image quality has the option of converting B-splines to phong shaded objects at render time.

The other area where Real 3D strays from tradition is animation. The accepted standard is to use some form of keyframing to animate your objects. With keyframes the program stores information about how an object moved, how much it rotated, stretched, etc. This method has limitations in itself. Try rotating an object in 2 different axis at the same time using keyframes to see one limitation; the keyframe information is only stored once per object and so the final rotation is just an average of the two seperate rotations.

Real 3D orders everything in a hierarchy, somewhat similar to files on a disk. When you animate something you create a METHOD that affects everything in the same level or directory. Using the double rotation as an example here's how the objects would be laid out in Real;

root level Cube_Level
cube
ROTATION.1(METHOD)
axis
ROTATION.2(METHOD)
axis

Rotation.1 is spinning only the cube while rotation.2 is spinning Cube_Level which contains both the cube and rotation.1. In other words, a rotating cube is being rotated. Because everything is stored in this way, there's no limitation on how many rotations you can apply to the object. Even a different type of animation, a path for example, could be used. By replacing rotation.2 with a path method you would have a spinning cube following a path. If you were then to swap the path and rotation methods around, the cube would follow a spinning path. Of course the cube could be replaced with any other object, even an animated one.



Conclusion

Well there you have it, all the votes are in and we've even had a word from one of the defenders.

My conclusion would be as follows;

If you need something to create animation on a day to day basis, then there is really no competition at present. LightWave is the easiest to learn and use and it's the most efficient at every day stuff. It also gets the vote for best interface on any 3D program on the Amiga. And don't get me wrong, it's not lacking in power or professionalism in any way.

If your needs are more complex and you have the time, there is no doubt that Real 3D 2.49 is well worth a look. I would really love to spend the time necessary to learn it but I still feel that the interface simply gets in the way. Maybe the up and coming version 3.0 will go some way to curing this. I hope so, because it does have an enormous amount of potential and it's very well supported in the UK and Europe.

Sauces and Aperatifs

Before you nip off and purchase one of these 3D programs, it might be as well to be aware of other pieces of software that you may need.

Sadly, I don't have the space to cover the more unqiue animation methods such as collision detection or skeletons but if you would like to know more, Activa have made available to readers of AUI a fully working demo version of Real. The demo will even let you save the projects you work on, and render them. To get this demo version plus some example project files, simply send a SAE to:

Activa International,
47 Bramerton Road,
Beckenham,
KENT BR3 3NY.

Pixel 3D Pro; as easy as ABC, NOT.

The main missing element in this collection, is the ability to convert between different object formats and to be able to convert fonts and 2D pictures and brushes into 3D objects.

Most of the major 3D programs have some of these abilities but it's often wiser to use a dedicated conversion program instead. There are essentially 3 choices;

Pixel 3D Pro (now version 2). This was one of the first conversion programs around and has been well developed over the years. It can happily convert between all the main object formats from the Amiga, PC and SGI platforms. The only completely missing link is with Real 3D. This, I think, is due to Real's wholly unique approach to object geometry. I'm sure that as Real gets wider use in the States, it will have a converter written for it, but I wouldn't like that task.

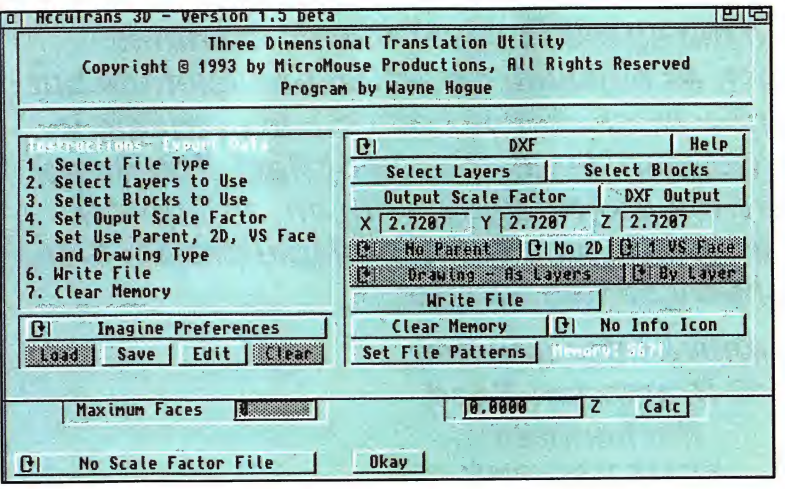
Although Pixel WILL do all these conversions, I wouldn't say it was exactly 100% reliable. It does tend to be very finnicky and difficult to use, despite having an apparently easy interface. Some objects seem not to convert without lots of strange problems, with surfaces and points vanishing. Other problems concern the relative scale of objects from one environment to another; imagine taking a shopping complex measured in mm and in .DXF format and converting to Imagine format. Every mm becomes an Imagine unit and it simply will NOT fit into the Imagine world. Hopefully these shortcommings have been sorted in version 2.

The font conversion is limited to bitmaps, which is close to useless.

The image conversion, on the other hand is pretty good. Not only will it convert images to 3D but with a choice of effects such as user controllable bevelling, spinning and smoothing.

Its a program I wouldn't like to do with out but it's still too buggy, too complicated and user-unfriendly.

If we lived in the States, we might be able to use 'Interchange Plus version 3.0'. I used the first version and it was almost faultless. Apparently this new version is wonderful, so it might be worth sussing out. You can't get it in the UK as far as I know, so try calling the company, Syndesis on 0101 414 674 5200.



Accutrans; simple but effective.

Another one that is hard to get is 'Accutrans 3D'. This is a fabby little program, whose sole purpose is to convert to and from .DXF format object files. As .DXF is pretty much the only universal 3D format accross all platforms, this is a vital ability. Although most other 3D programs purport to include .DXF conversion, I haven't found one that does it as well as Accutrans.

Graphically Speaking

So there you have it. For a relatively cheap machine, the Amiga has an excellent choice. YOU can use it to make the most wondous 3D graphics - stuff that will have the professional artists using other machines gasping, if your own creativity is big enough. Remember that Leonardo da Vinci and Michaelangelo didn't have the best tools in the world to work from but see what they produced - the Sistine Chapel included..

It is a matter of sitting down and working out what you really want to achieve - professionally or as a hobby and deciding to do what is necessary to make it happen.

Because Commodore has hit trouble, it doesn't mean that that the Amiga isn't the ideal machine to let out all that dammed up creativity. It is. And 3D art is possibly the best way in the world that you could choose to channel it through. Graphically speaking, bet-ween you and the Amiga you can do wonders - and I mean that literally.

And finally, this is where all this lovely software come from. AUI

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CLE 09 - Words & Ladders. Educational game (1 Disk)
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CLE 17 - Thingamajig. Jigsaw for young children (1 Disk)
CLE 18 - Work & Play. For younger children (1 Disk)
CLE 19 - Play It Safe. Teach children about danger (1 Disk)
CLE 20 - Big Top Fun. Spelling games for children (1 Disk)
CLE 22 - Chess Teacher. Learn to play the game (1 Disk)
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CLE 29 - Prehistoric Fun Pack. (1 Disk)
CLE 30 - Peg A Picture. Draw pictures with pegs (1 Disk)
CLE 31 - Understanding Amos. (2 Disks)
CLE 35 - Total Concepts Solar System 2. (3 Disks)
CLE 39 - My Little Artist. Colouring book (2 Disks)
CLE 45 - Fun With Cubby 2. (1 Disk)
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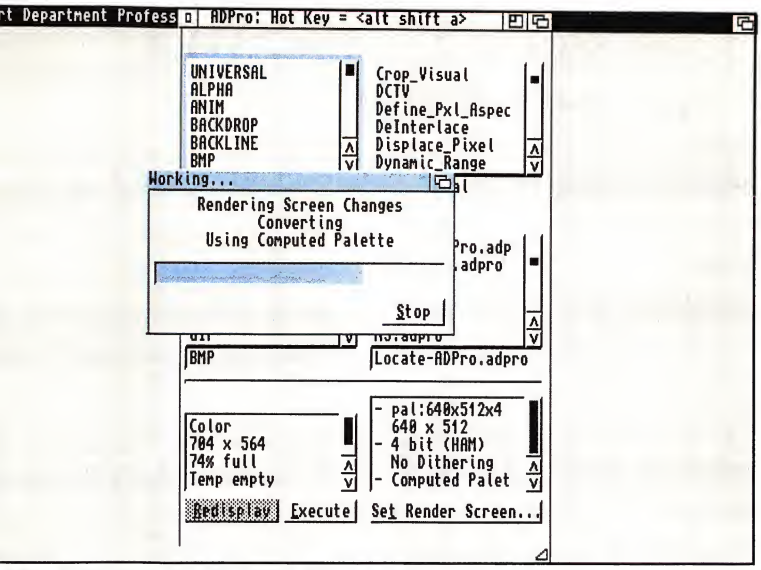
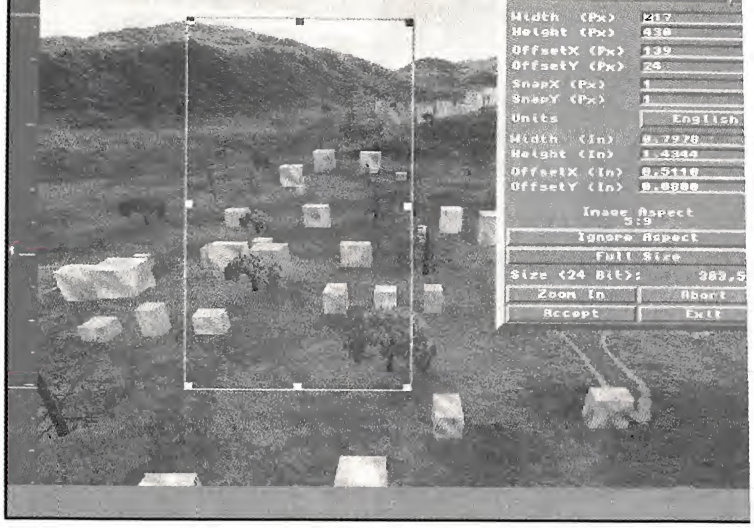
PLEASE ADD £1.50 POSTAGE AND PACKING TO ALL ORDERS.



ADPro is the standard application for the miga - is there a file format it can't handle?



ADPro has various operators, which allow to manipulate the image.

The TRUTH about the Amiga

How is the Amiga perceived against other contenders in the broadcast graphics arena? Animator Wil Mobberley tells it like it looks.

magine the reaction were someone to build a Star Trek style transporter capable of beaming up Scotty and whisking Dr. McCoy half way round e planet, a machine which worked awlessly, destined to change the face transport as we know it. Now that ould be impressive.

Now imagine that our genius ventor uses an Amiga 4000 for the terface, perhaps running Scala MM make operating the system as mple and as accessible as possible.

The result would be pre-ctable. Men in suits would watch e machine in action and marvel. nen they would see the Amiga icker and say: "Hey, this is great! 'hen are you going to build the real ing?"

It's sad, I know, but however uch we enjoy the Amiga and re-ardless of how impressive its erformance gets, to large sections the video industry, its ideal niche arket, the Amiga is considered to e a toy. Never mind whether it works. ever mind whether it is incredibly neap. Never mind whether it is a eam to use. Do I detect a 68040

The Mac and PC boys love it when the Amiga is undersold, underestimated and underdog.

ıip tucked away inside my A4000, at same slice of silicon used inside gh-end Apple Macs? Well, shrug y shoulders! The Amiga is still a toy ıd that appalling, condescending bel is the kiss of death to many ients in the TV industry.

It's not their fault and it doesn't ean they're stupid. It's the result of ɔmmo-dire hopelessly underselling eir machine and the opposition doing eir level best to help them do it.

Anyone who has an Amiga is familiar with this sight – DPaint.

Images like this can be created on most Amigas.

I once stood near a stand at a video show. The salesman was showing off a feeble 3D package running on a Mac. Imagine or Real3D users would have thrown it in the bin in contempt within 5 minutes and my guess is that the salesman knew it.

When I mentioned the Amiga, the salesman laughed as much as to say, "Come on, this isn't amate hour." The small crowd of fello visitors to the stand also laughed felt small.

Trained

Now, I know I shouldn't have f small because I knew what I w

talking about but when a smug salesman trashes you in front of a group of plebs (who trust him more than they trust you because he's the one with the smart suit and the posh corporate-looking exhibition stand) and the plebs all laugh and look at you as if you've just said something very silly, that's the human reaction.

Instead of walking away with my tail between my legs, however, I hung around just to see how much interest his grotty, substandard program would generate with the gullible public. It was then that I made a startling discovery.

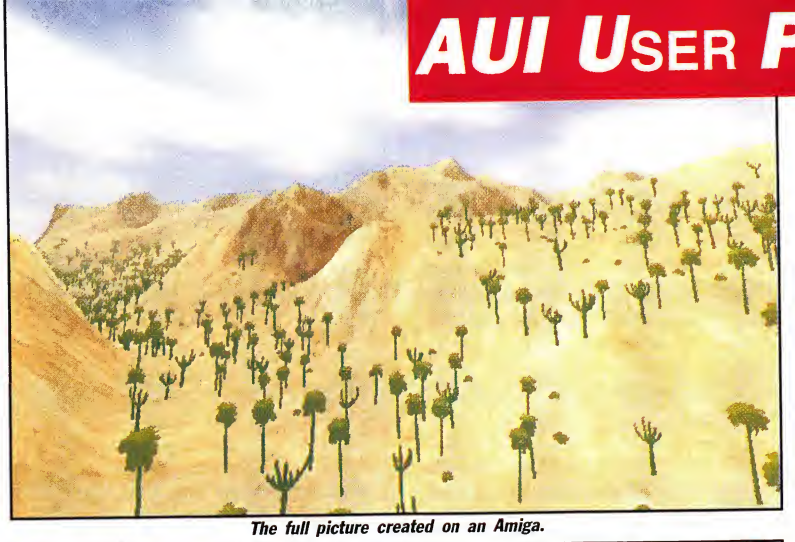
When the next person mentioned the Amiga, the salesman did exactly the same thing as before – exactly the same. The same movement of the head, the same number of syllables to the laugh. Carbon copy. After watching the fourth or fifth person receive this reaction it finally dawned on me that this salesman, with his inferior software, was actually TRAINED to give that little chuckle every time the Amiga was mentioned. Its effect is devastating on potential customers and he was growing increasingly uneasy at my standing there watching him do it.

So don't be surprised when the Amiga gets a poor press. The Mac and PC boys love it when the Amiga is undersold, underestimated and underdog. I've found from experience that if I want to put my Amiga to work in professional TV it is better to present potential clients with my capabilities and try to minimise their exposure to my hardware until quite late in the day when they will say: "I can't believe that you're doing this on an Amiga!" Then they come back for more.

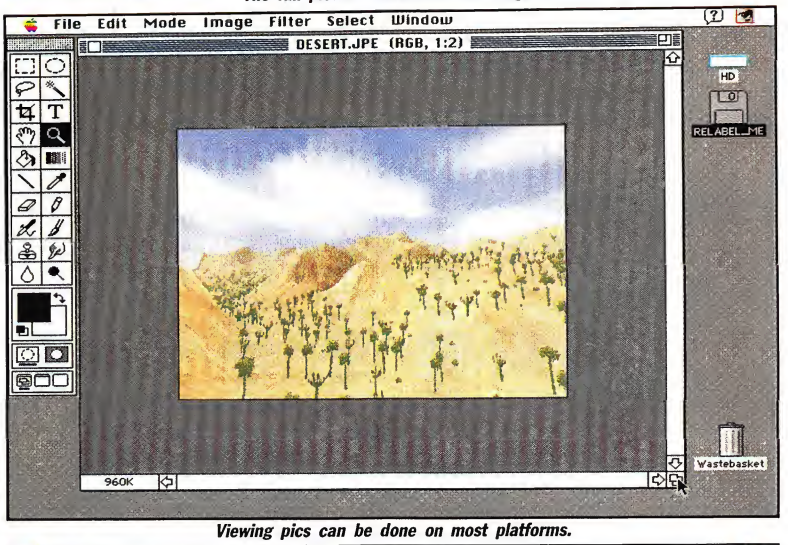
Switching

On the other hand, a lot of damage is done by a small minority trying to compensate by overselling the Amiga. If you really want to know exactly how it compares, it's quite hard to find out because different computer platforms are like religious denominations. People bicker and argue about which is best and try to gain converts to their cause regardless of reality. Switching from one platform to another is usually only the result of being dragged from familiar territory, kicking and screaming all the way.

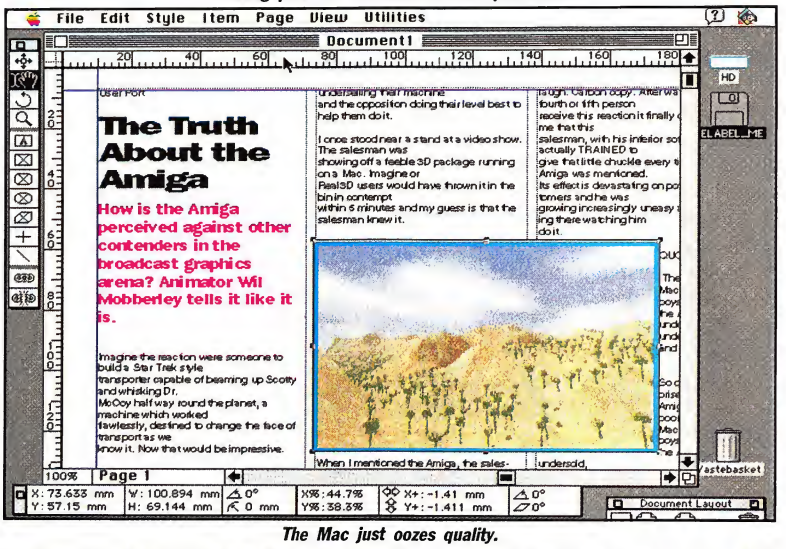
The Amiga has tremendous strengths and weaknesses and it is the right tool for the job sometimes – but not always. There are some things it can do at a push, but there's often a more viable option. Silly example: you don't fry an egg on a 68040 chip just because it can get hot enough. You use a frying pan. Similarly, when a client is hopping up and down, desperate for an embossed caption over a slightly enlarged detail from a video frame from such and such a sequence and the bike is waiting to take it over to the edit suite where the director is throwing a wobbly because he forgot to ask for the caption last week, you don't use the Amiga. It COULD create that finished frame – eventually – but Paintbox will spit it out so fast that it might just make that edit deadline.



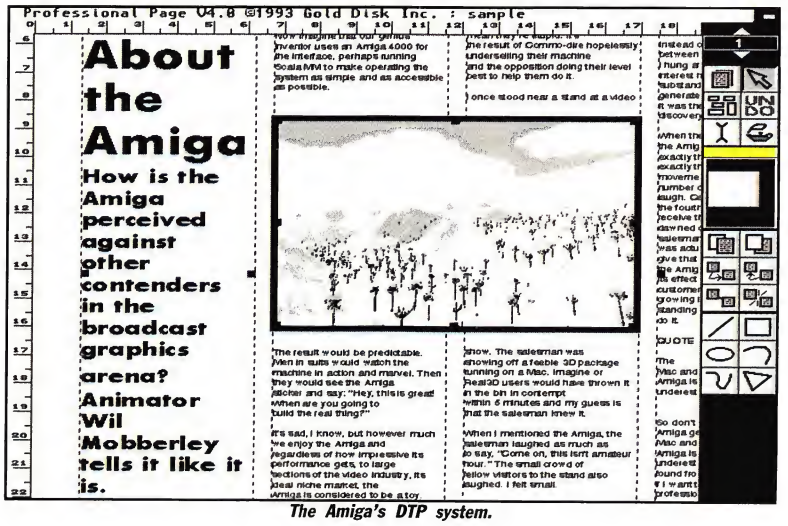
The full picture created on an Amiga.



Viewing pics can be done on most platforms.



The Mac just oozes quality.



The Amiga's DTP system.

Versatility

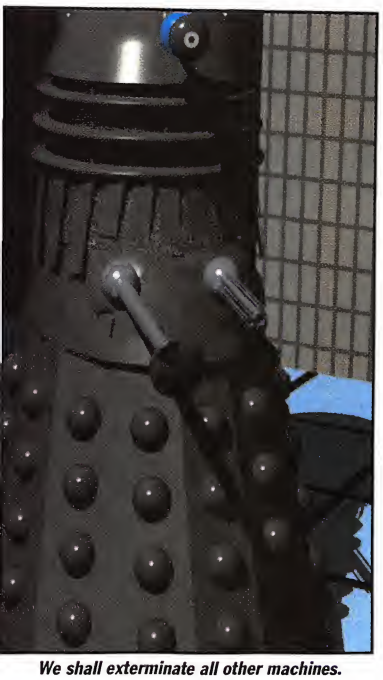
As for Paintbox, it does an airbrush stroke with a large brush in real time and can rotate or scale an entire 24 bit TV frame faster than DPaint can manipulate a low res brush.

BUT and it is a big, big, big, but – note well – IF you have the extra time to spare and a little ingenuity you can match the images output by the big guns for a thirtieth of the price. That is not just impressive. That borders on the miraculous. You really can take on the big boys and beat them at their own game. IF YOU HAVE THE TIME.

A V-Series Paintbox may leave Opalpaint standing in terms of speed – no comparison – but for versatility Opalpaint blows the Paintbox out of the water and where the Amiga wins over every other platform that I have ever seen is its ease of file handling. (Try renaming a file on the Paintbox!)

Time = Money.

If you have megabucks you'll probably go for SGI, especially for 3D. It's a horrible platform, quirky and not particularly friendly. There's an awful lot of typing stuff in via the keyboard. It's nothing like as friendly as the good old Amiga but it is so fast that it will pay for itself very quickly. It is in a different league as a workhorse and comparisons with Amigas, Macs and PCs are really



We shall exterminate all other machines.

rather silly. Nevertheless, I say again, GIVEN TIME the Amiga can match the output in most areas and there is software available for the Amiga for under a hundred pounds the equivalent of which would cost thousands on the SGI platform. An SGI system can cost upwards of 30 times a comparable Amiga system. It is better but it isn't 30 times better. There isn't as much in it as you would think.

Medium bucks: Mac is industry standard. It doesn't deserve to be and it's down to very good marketing more than anything else that it holds that position.

Pound for pound the Amiga software is far better value but cannot match the tremendous range on Mac and PC platforms. They are growing stronger all the time because they are being carried along by a corporate momentum which will be hard to resist.

Platforms

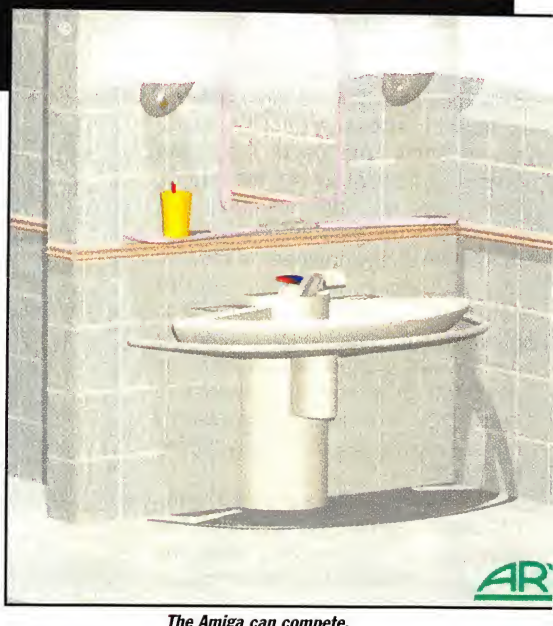
For credibility and compatibility with the majority of the industry, at first glance it would seem to be the Mac. There's one more thing to consider for the mid price range buyer, however, and it is this: why commit yourself to just the one platform? If you want to make your money go far

The only machine which can run Mac, PC and Amiga software is the Amiga.

with a high degree of versatility, bear in mind that while emulation of other platforms on the Amiga is not perfect, it is very good. You could do a lot worse than putting together an Amiga system with PC and Mac emulation built in. Then you'll have the widest access to software and have the enviable versatility of being familiar with all three systems. Given a mid-range budget and a desire to take advantage of the promising multimedia market, that is what I would do. Then I'd be in a position to make a less painful jump if a clear winner emerges in the multimedia wars. The only machine which can run Mac, PC and Amiga software is the Amiga. It may not be industry standard but it is multistandard!

Modest bucks: For phenomenal graphics performance on a low budget where time isn't the main consideration the Amiga is still king, even more so in the USA, land of the Video Toaster, where the lower resolution of the NTSC format closes the gap.

Quality images can be achieved for low cost.

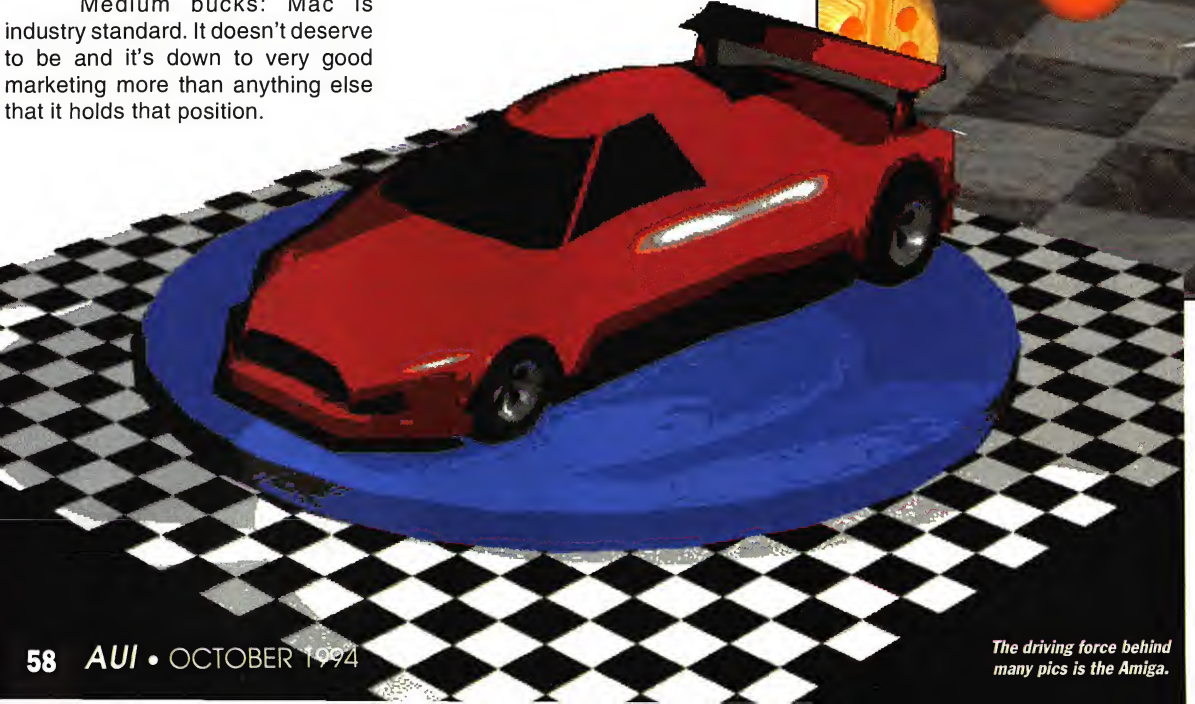


The Amiga can compete.

Sadly, however, nobody can pretend the situation hasn't been changing. There is increasingly little to choose between Amiga, PCs and Macs now because Commodore let their lead slip – and I hate them for it – but don't be fooled. There's still a strong case for the Amiga and things may take an unexpected turn in its favour. ***AUI***

Buy an Amiga. Expand it. Use it. Enjoy it but hide the sticker from your clients.

Wil Mobberley's Amiga credits include the Glastonbury Festival Ident for Channel Four.



The driving force behind many pics is the Amiga.

INSIGHT
DINOSAURS

INSIGHT:DINOSAURS is the second title in the INSIGHT series, a lavishly produced title rich in multimedia. You can be assured INSIGHT:Dinosaurs will be visually stunning and technically correct as the title is being produced in association with the British Natural History Museum, one of the world's foremost centres of excellence in the field of paleontology. A unique title for the whole family, produced in a concise, easy to read style which allows it to be used for reference and browsing alike.

A comprehensive A-Z section gives in depth information on the best known dinosaurs from Allosaurus to Velociraptor.
Life of the Dinosaurs covers Anatomy, Attack And Defense, Herbivores, Carnivores, Climate, Pack Hunters, Lone Hunters, Herds, Scavengers, Descendants and much more.
World of the Dinosaurs covers Death Of The Dinosaurs, Shifting Continents, Family Tree, Fossil Hunters and Hunting and much more.

DINO SAW is a chinese jigsaw with 25 different dinosaur puzzles

DINO PAINT is a simple to use children's colouring book with 25 pages for you to colour.

DINO QUIZ is a multimedia quiz for one or two players with questions on all aspects of Dinosaurs.

TEXT - Comprehensive text coverage

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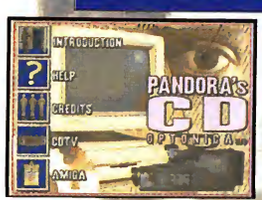
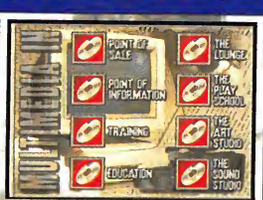
MOTION VIDEO - Video clips bring to life this lost world!

A comprehensive cross reference index and online glossary give you quick and easy access to the information you need.

PANDORA'S CD





PANDORA'S CD shows you just what can be achieved with multimedia and your Commodore CD system, an all original promotional disc containing something for everyone, Five Senses production, the Nuclear industry, number counting game, Milton Keynes guidebook, jukebox, clipart library, photo library, textures library, sound effects library and a sampler of INSIGHT:Technology. Sample the wonderful world of Optonica multimedia.

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First Steps in ... Comms

Patrick Howlett offers a helping hand to those thinking of entering the growing world of computer communications.

The advantages a modem brings to the home computer user are many and varied. Whether you want to download PD from bulletin boards, send messages or faxes, or join in the burgeoning electronic conferencing scene, a cheap modem, some PD software and a little know how is all you need to get going.

As our comms expert, Andy Eskelson, is keen to point out, not just any modem will do. Comms can be a confusing topic with obscure abbreviations such as V22bis, Z modem and so on but follow some simple guidelines and you won't have to worry too much about not knowing everything there is to know.

The type of modem that the Amiga can use must be asynchronous, using either the V22bis, V32, V32bis or possibly V42/V42bis standard. The speed can be anything from 2400 (slow) to 14,400 (fast) bps, and generally, the faster the better. If you just want to send or receive the odd message, a cheap 2400 modem will do, but for downloading lots of files, a 14,400 will save a heavy phone bill. So as faster modems offer extra features too such as fax capability, we will concentrate on using them.

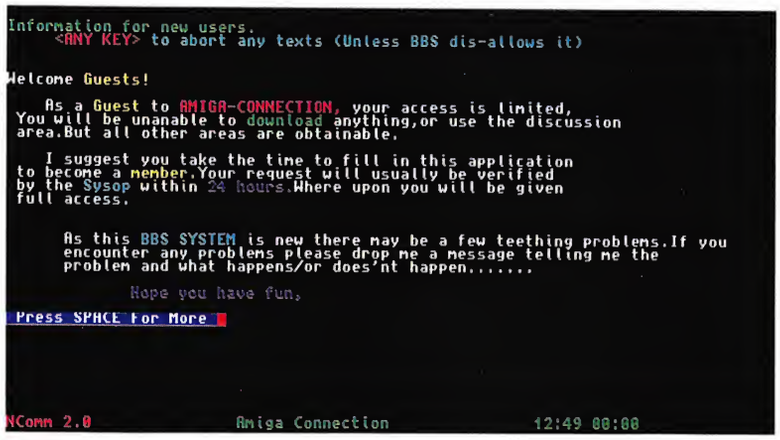
Two popular modems are the Supra 14,400 fax and Sportster II 14,400. The Supra was reviewed in the December 1993 issue of *AUI*. There is a review planned for the Sportster.

Although the Supra comes packaged with Amiga comms software this isn't necessary since some excellent PD software is available. The most popular PD terminal program is NComm, and version 2 or 3 will cover nearly all your needs and is simple to use. Ideally Ncomm should be installed on a hard drive, it's not essential but makes life a lot easier. Once installed and with the modem connected to the phone line and the Amigas serial port we're ready to go on-line, almost. Firstly Ncomm needs to be set up to work correctly with the popular modems, as shown in the screen shots, and secondly we need some telephone numbers.

Bulletin Board

Dialling up the number (best done by adding the bulletin board to the phone book) presents us with a login prompt. New users are usually detected automatically, followed by a few questions and registration details to inform the Sysop of who and what we are. Generally, BBS's allow new users to explore the various file and message areas but downloads are not possible until the Sysop checks out the registration details.

Most BBS Sysops will register you as a user within 24 hours, and as a standard user there will usually be an up/download ratio governing how many bytes can be downloaded before you must upload something yourself. Generally most boards are easy to use, requiring single key entries to move between the on screen menus and enter the various file and message areas. A file area contains files which can be downloaded to your computer, these can be PD programs, pictures, sound files, in fact anything which is a non copyrighted file. The files will be sub-divided into descriptive areas such as music, graphics, star trek and so on.



Before we can really use the BBS we need to register.

Message areas are used in a similar fashion to hold messages which can be read on-line or downloaded, you can also reply to these messages or enter another message, which should, of course, relate to the message area topic.

Looking through the file lists and selecting files for downloading is quite a simple procedure as shown in the screen pictures. When downloading starts, the files will be placed in the download directory specified within NComm. This should be a drawer on the hard drive, or the RAM disk, memory permitting.

All BBS files are archived, so competence with Lha is necessary to be able to unarchive and use the files. There is usually an up/download ratio which must be adhered to. The BBS will inform you of how many bytes you have left and when this runs out it's time to upload something.

Generally most boards are easy to use, requiring single key entries to move between the on screen menus and enter the various file and message areas.

Uploading can be a little more tricky, but follow the BBS instructions to locate the right area and then selecting upload from Ncomm will bring up a file requestor. Clicking on a file then uploads it onto the board, after it's done you may enter some text to describe the contents of the file you've uploaded. Remember to archive files first and of course make sure that no copyright infringement will occur.

Uploading helps to keep a good flow of new files appearing on the

Hook up the modem, get a BBS number and off we go.

All the various files areas ready to explore.

boards and although it can be annoying to upload for the sake of it do try and keep in with the spirit of things by uploading anything you think might be interesting.

When you consider that most BBS's are free, and that you are using somebody elses computer it makes sense to be courteous. Most Sysops are friendly enough so try chatting with them if you really don't have anything to upload.

Local Calls

Depending on where you live it's wise to find a couple of good BBS' which are reasonably close. This saves on phone bills, especially if it's a local call, and generally the popular BBS' have more or less the same files. Once the basics of comms and BBS usage have been mastered it's time to consider downloading one of the many off-line readers (OLR) available. These save time and money by allowing batchs of messages to be downloaded, then once off-line the OLR will display all the messages, allowing replies if necessary and at the next log on all your replies are uploaded in one go. It saves a lot of connection time and money, and is an efficient way to use messaging facilities.

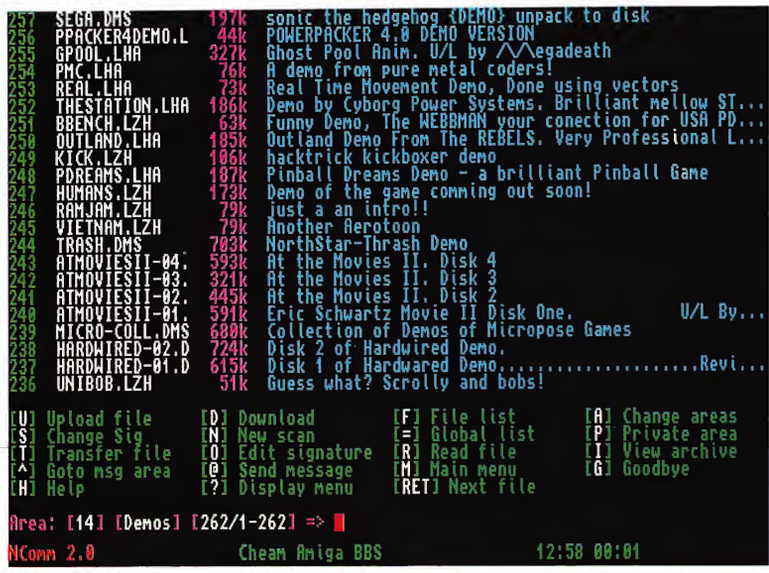
There are several excellent OLR programs in the public domain but the program must be compatible with the software used by the BBS for bulk downloading. Check the 'door' that your BBS uses.

Services

Moving on from BBS's we come to subscription services. These are commercially run operations which offer the usual file and message facilities but with no up/download ratios. There are also extra facilities such as Internet access, fax and email. Demon and CIX (Compulink Information eXchange) are popular and will cost between £8 and £15 a month depending on usage. Both have a large Amiga following, with Demon offering direct access to the Internet and CIX offering an Internet gateway.

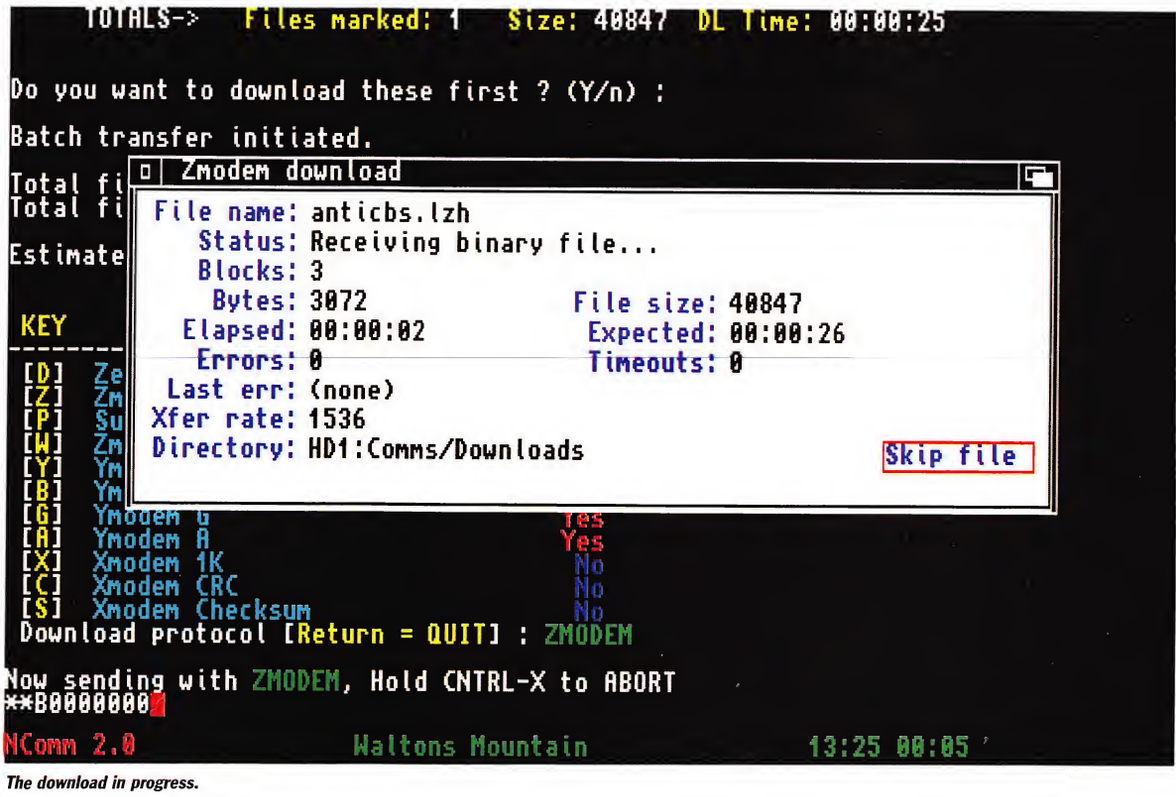
Internet is massive so a lot of time may be spent finding the subject areas you want but the freedom to send and receive worldwide email is mindboggling.

The Internet is a worldwide computer network linking thousands of major computer systems together (See *AUI* July 1994). Accessing



The next step is to list files and select something to download.

Oh dear! I've used up all the download credits and now need to upload something to build up byte credits



The download in progress.

```
NOW IN THE FLIST :

triton10.lha  102041 bytes

    triton.library is a standard Amiga shared, runtime library.  Triton
    makes it much easier to create good-looking graphical user
    interfaces (GUIs) than GadTools, BOOPSI or other systems.

    The most important features are:

    - Object oriented system
    - Automatically font sensitive, font adaptive
    - Automatic keyboard shortcuts for default window actions
    - *Really* easy to use
    - Beautiful OS2.x/3.x look
    - Comes as a freely distributable shared library
    - Size! Though Triton is very powerful, it is a shared library of less
      than 40KB. You don't need any startup tools, editors, BOOPSI classes
      or other things. It's the Triton among the minnows of GUI creation
      systems ;)
    - Resizeability of windows wherever applicable
    - No large stack required

Richard

No more unread
Hit <RETURN> for next
RB:
NComm 2.0                CIX                          12:54 00:01
```

CIX is more conference oriented but still has a large file base.

```
Computing: Commodore and Amiga
------------------------------
  a4000              Secret
  alt.alt.amiga      For people too offbeat to be accepted in alt.amiga
  alt.amiga          For interesting people only.
  amidemos           For Amiga Demo Programmers
  amiga              Commodore Amiga Conference.
  amiga.24bitgra     Extended graphics for the Amiga
  amiga.com          Amiga Commercial Developers forum.
  amiga_request      Now where did I see that file?
  amigamods          For ALL amiga music freaks
  amigaware          Devoted to Britains first Amiga only PD magazine
  amreport           AMReport International - Amiga OnLine magazine
  cando              For the CanDo authoring system on the Amiga.
  checkmate          A1500 information exchange
  global_aga         Global Effect AGA, CD32 version
  gtb                Discussion of GadToolBox and Amiga Gadget Creation
  momiga             For Amiga users toexchange info on MO-MIGA's
  protext6           For discussion of Amiga specific issues in Protext v6
  soundtracker       Amiga soundtracker and clones
  threedeeo          All about the new 3DO multiplayer and software
  ttx                For users of Turbotext on the Amiga
  videocreator       For users of Video Creator on Amiga CD32
  xetec-cdx          For Xetec CD-ROM driver (amiga) users

Computing: Apple
----------------
  4th                General information about the No 1 database package for Mac
  apple2             Apple II users - old and older
More ?
NComm 2.0                CIX                          12:55 00:02
```

A list of the various Amiga conferences available on CIX.

Internet allows you to talk to anybody on these systems as well as transmit files and join in conferences. Internet is massive so a lot of time may be spent finding the subject areas you want but the freedom to send and receive worldwide email is mindboggling. Email addresses are becoming commonplace and in general, Internet is the best way to use standard email (different to BBS mail).

Still on CIX (our favourite service here at *AUI*), we come to OLRs again. The most popular choice here is Nicola, programmed by CIXs own Tricky. This is a Licenseware program, providing 40 days free trial before the program is disabled and a license is purchased. The cost of £35 is well worth it since Nicola performs exceedingly well.

More expensive than CIX and Demon is CompuServe, a worldwide subscription service which offers just about every conceivable piece of online information. Many of its services require additional fees but the ability to access the vast amount of financial, news and travel information (for starters) makes CompuServe a very popular service for more serious users. Unfortunately, for us Amiga users there is no specific software for accessing CompuServe, which makes using it a bit of a hassle, but the Internet can also be cryptic and confusing. CompuServe costs about £6 per month plus £4 approximately per hour rising to a whopping £10 per hour for premium services. Average BBS usage will cost roughly £2 to £5 per month and will provide more information than you could possible want or desire.

Decision

Deciding on whether to purchase a modem and which services to use should be based on what the computer is used for and which facilities are required.

The serious user may well want a modem to access the huge amount of files available as well as join in discussions about our favourite home computer.

For this use a mid range modem and BBS access is fine. Anyone using their Amiga in a professional capacity (lucky you) may look to CIX for its excellent technical support. Alternatively, others may use more general business facilities such as faxes and financial data. A high spec modem and subscription to CompuServe should be on the list here.

Both Supra and US Robotics produce modems with fax capability. At present only commercial products such as GPFax or TrapFax are available for compatible modems.

The Supra 14400 comes with GPFax included but check for good price deals. Also for on USR modems which offer high performance, are BABT approved and, with a recent reduction in price, compete well on price with the Supra, even if fax software must be added to the price.

Gateway

CIX is not uncommon in offering a fax service ('gateway') which can be used to fax documents but an additional charge will appear for each document sent. Fax software is much more preferable, allowing scheduling of faxes, custom headers and even the inclusion of IFF pictures (2 colour only).

Whatever your bag, commputer communications is a vast and fascinating world. Now that BT has lost its monopoly and call charges are decreasing there's never been a better time to invest in the peripheral you always thought you never needed. *AUI*

Easy Access

baud - A measure of a modems modulation speed. Although 300 bps corresponds to 300 baud the two should not be interchanged. 19,200 baud is 14,400 bps.

V Standard - A series of communications standards set by the ITU-T (formlerly CCITT). V22 is 1200 bps full duplex asynchronous. V32 is 9600 bps full duplex asynchronous/synchronous.

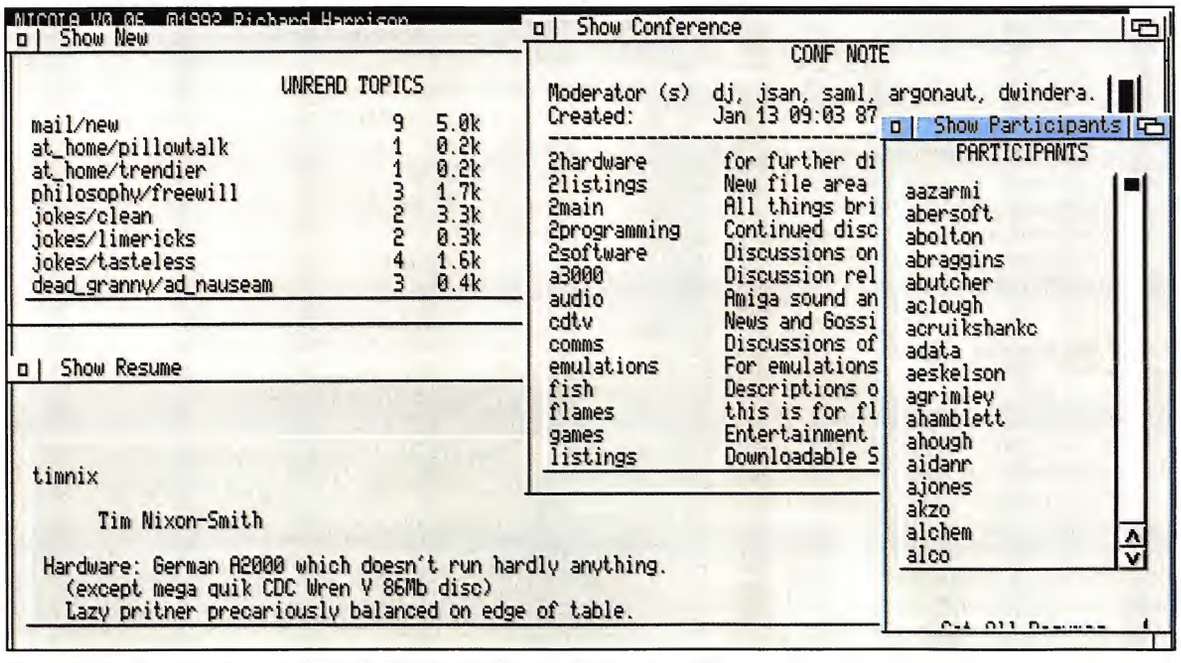
V.32 bis - Increases the V32 standard speed to 14,400 bps. Achieved through data compression.

V.fast - Working title of the next modem standard. Will almost definitely be V34 and offer 28,800 bps.

V32 turbo - A proprietry stands which increase V32 throughput to 19,200. Not recommended since this is limited to a number of suppliers and is unlikely to obtain ITU-T approval (due to the impending V.Fast standard).

Xmodem, ymodem, zmodem - Protocols for the transfer of data between 2 modems, defining error correction and compression algorithms.

BABT - British Approvals Board for Telecommunications. All telecomms hardware connected to BT lines must be BABT approved and used in an approved manner. If it's not you've got the DTI to answer to.



Nicola provides a complete interface to CIX, with all operations peformed off-line, saving mucho money.

Amiganuts

Public Domain Library

Now Under New Ownership

Once again Amiganuts has changed ownership. We have also joined with Shareware In Shops who offer a wide range of PD and Shareware DTP software. We have revised our prices on our PD selection and we have added loads of new titles to the PD, Licenseware and Amiganuts Gold collections. If you send £1.00 & s.a.e we will send you both Amiganuts and Shareware In Shops catalogue disks.

ACCM 5 & 6

These are the last disks in the ACCM range and they cover: Bobs, Bob lists, Blitter Collision Detection, Continual Scrolling Vertical & Horizontal, Using Block Maps & includes Map Editor, Example Vertical & Horizontal games. Price £5.00 per disk + 60p P&P.

WordsPro V4

The best crossword puzzle aid has just got better. It now has a glossary of nearly 100.000 words, full glossary editing feature, creates/solves anagrams, creates possible words from letters and space strings and many more features. Price £10.00 + 60p P&P.

Amiganuts Gold Packs

We have now added loads of new packs into this range such as 4 new Samples packs, 3 new Finalcopy Fonts packs, and 3 new Pagestream Fonts packs. Each pack consists of 5 disks and costs £5.50 each. For full listings of packs see our catalogue disk.

Operation Firestorm

This is a brilliant game which has been written by Phil Ruston who happens to be the author of Wibble World Giddy 1&2. It is similar to the Robocop games and the gfx, sound and playability are second to none. This is Licenseware. Price £3.50.

3, Spring Road, Bitterne, Southampton, SO19 2BH.

LCL announce an incredible new release

CD MICRO FRENCH (Beginners - GCSE) NEW

CD Micro French is a complete course of 30 programs taking beginners up to GCSE in French, following the National Curriculum, for the Amiga CD or CD32. (See the black & white pictures of the full colour screen).

It uses all the features of a CD system, i.e.

- Interactive film-like programs are included. Actors talk to you out loud and wait for you to reply, before continuing the conversation, in French.
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PROGRAMMING TIPS

Creating Time Delays - Part 2

Paul Overaa rounds off his timer device discussions with some details of reply ports and other things that, he claims, go bump in the night!

The Amiga's timer device use follows the same broad plan as any other device and in this month's example program we'll be setting the device up in UNIT_MICROHZ mode using a CMD_ADDREQUEST command coupled with the DoIO() call discussed last month. This results in the timer device waiting for the specified time period before replying to the time interval request. Opening the timer device, using it via a combined set of standard commands, and closing it when you've finished is simple enough but in practice things are complicated by the setting up operations which have to be done.

Luckily there are some additional functions in the amiga.lib library that make life a little easier. The first two simplify the creation and deletion of message ports, the second two allow you to create and delete extended IORequest structures. You'll find the amiga.lib routines in the accompanying box outs but I ought to mention that nowadays there are also equivalent functions available in the Exec library which can be used in much the same way.

Seven Steps

The scenario for timer device therefore involves these seven steps: Use CreatePort() or the alternative Exec function to create a reply port for the device to send its messages to. Allocate and initialise a suitable device I/O request structure by using CreateExtIO() or the equivalent Exec function .Open the device using the OpenDevice() function. Use the device for as long as required. Close the device using the CloseDevice() function. Delete the I/O request structure using DeleteExtIO() or the alternative Exec function. Delete the reply port using DeletePort() or the alternative Exec function.

The approach I've adopted for performing these operations has proved very effective over the years and I will be discussing it in detail next month. For the moment though here is a simplified explanation: to get things done in the right order a function pointer oriented approach is used that involves pushing the address of the closedown function onto a stack every time something is opened or allocated.

Listing 1 shows how the reply port operations are handled but you'll find many other examples in the allocator.c file on disk - this is the module that contains the example program's allocation/deallocation routines! When the program needs to shut everything down all that has to be done is for the deallocation routine function pointers to be pulled from the stack and the corresponding routines executed. The execution order of the initial routines that carry out the various setting up operations comes from a function pointer array.

The example program, called TimerTest, makes pretty straightforward use of the timer device. It just sets the unit up and then, when the user selects a delay setting from the menu, it displays some text messages using timer device calls to control the speed with which the messages are presented. Because the program is Intuition based all of the usual things, like window opening and menu setting up, also have to be dealt with (as you might expect the Intuition related operations form the bulk of the code).

You'll find the appropriate routines in the allocator.c module and this time I've used the more modern Gadtools library approaches (this means that the example program will NOT run on Workbench 1.3 based machines). The code for the menu event handler is in the amiga.c module and it is from here that the timer device calls are made to control the message display timing. On the disk you'll also find the header files which hold function prototypes, display position data, variable declarations and so on. ***AUI***

```
UBYTE CreateTimerReplyPort()
{
UBYTE error_number=NO_ERROR;
if((g_timer_reply_port_p=CreatePort(TIMERNAME,0))==NULL)
        error_number=ALLOCATION_ERROR;
else {
        g_function=DeleteTimerReplyPort;
        PushStack(g_resource_stack_p,g_function);
        }
return(error_number);
}
void DeleteTimerReplyPort()
{
DeletePort(g_timer_reply_port_p);
}
```

Listing 1: Using the amiga.lib functions to handle the reply port operations

Function Name:	CreatePort()
Description:	Create a message port
Call Format:	port_p=CreatePort(name_p, priority);
C Prototype:	struct MsgPort *CreatePort(char *, LONG);
Arguments:	name_p - pointer to NULL terminated string
	priority - priority value (used to position the port in the public port list).
Return Value:	port_p - pointer to a new message port.
Notes:	If a NULL name is provided the port is not added to Exec's

Function Name:	DeletePort()
Description:	Delete a port
Call Format:	DeletePort(port_p);
C Prototype:	void DeletePort(struct MsgPort *);
Arguments:	port_p - pointer to the message port.
Return Value:	None

Function Name:	CreateExtIO()
Description:	Create an IORequest based structure
Call Format:	io_request_p=CreateExtIO(reply_port_p, size);
C Prototype:	struct IORequest *CreateExtIO(struct MsgPort *, ULONG);
Arguments:	reply_port_p - pointer to an initialised message port
	size - size of the I/O request block needed
Return Value:	io_request_p - pointer to the new I/O request structure or NULL if function failed.
Notes:	Normally size is determined by using sizeof() in conjunction with the extended device specific structures defined in the system headers.

Function Name:	DeleteExtIO()
Description:	Delete an IORequest based structure
Call Format:	DeleteExtIO(io_request_p);
C Prototype:	void DeleteExtIO(struct IORequest *);
Arguments:	io_request_p - pointer to an I/O request block.
Return Value:	None

ARexx INFO

This month we have some more ARexx file handling help from Paul Overaa.

Last month we saw how an ARexx script can be used to read characters and lines of text from an ASCII text file. This month we'll look at the reverse process, how text can be written to a file.

We begin with a function called Writech(). This is complementary to Readch() as it writes characters to, rather than reads characters from, a specified file. The function call itself has this type of format:

```
count=Writech(file, string$)
```

where the returned count value gives the number of characters written. To be honest in most ARexx programs once a file has been successfully opened Writech() operations will not be checked for success and this type of ARexx code is the norm:

```
if Open(file, name$,'w') then
do call Writech(file,string$)
Close(file)
end
```

If you are writing to a floppy you may often encounter write errors due to a full or write protected disk!

To be really safe however, ARexx programs ought to test whether the Writech() operation was successful by checking the character count against the length of the original string. If you are writing to a floppy you may often encounter write errors due to a full or write protected disk!

Writeln() is the other function you need to know about. This is complementary to Readln() as it writes, rather than reads, a line of data. One important difference between this function and Writech() is that Writeln() tags a newline character at the end of the data (its this that signifies the end of a line). The function call itself has a similar type of call layout, on other words,

```
count=Writeln(file, string$)
```

where again the returned count valu indicates the number of characte actually written. As with Writech this type of 'unchecked' Writeln() coc is commonly used by most ARex coders:

```
if Open(file, name$,'w') then
 do call Writeln(file,string$)
Close(file)
end
```

but again programs can, and reall should, check whether the Writeln operation was OK by testing th returned character count. If yo choose to do this however, a word c warning – because of the additiona newline character, the characte count returned will be one more tha the length of the original string an you must take account of this whe you check the string length.

Last month's example scrip was reading lines of text from a fil and displaying them using the ARex SAY instruction. This is all right but i general Writeln() provides rathe more flexibility. The great thing abou using Readln() and Writeln() is tha you can read from either the keyboar or a file, and send output to either th screen or a file with very littl alterations to a script. Script1.rex for example uses Open() to create a additional raw window and ther makes a Writeln() call to write a message into it. Notice incidentally how Readch() is being used to wai for the user to press any key before closing the window.

This type of instantaneous keypress detection and reaction cannot be done with a normal shel window because anything that is typed does not get acted upon unti the return key is pressed.

Script2.rexx is a similar program but I've defined a couple o control character strings that turn inverse character drawing on and of and so the result here is that the message ends up being displayed in inverse video colours. Script3.rexx collects lines of text typed at the keyboard and stores them in a named file. *AUI*

```
/* Script1.rexx - An example raw window writing script */
message$='Press any key to close this raw window'
if Open(window,'RAW:00/0/640/200/Script1.rexx') then
do call Writeln(window, message$)
call Readch(window,1) /* wait for user to press a key */ call Close(window)
end
else say 'sorry - could not open raw window for message!'
```

```
/* Script2.rexx - An example raw window writing script that uses inverse
video text*/
CSI  = '9b'x
INVERSE_ON =CSIII'37'xII'6d'x
INVERSE_OFF =CSIII'30'xII'6d'x
message$=INVERSE_ONII'Press any key to close this raw
window'IIINVERSE_OFF
if Open(window,'RAW:00/0/640/200/Script1.rexx') then
do call Writeln(window, message$)
call Readch(window,1) /* wait for user to press a key */
call Close(window)
end
else say 'sorry - could not open raw window for message!'
```

```
/* Script3.rexx - example uses a loop to store lines typed from the
keyboard */
say 'Please give me a file path and name'
pull name$ say 'Now type lines of text that you wish to store in this file'
say '[To quit the program hit RETURN without entering data!)]'
if Open(file, name$,'w') then
do parse pull line$      /* get first input  */
do while line$~=="
call Writeln(file, line$)
parse pull line$
end
call Close(file)
end
else say 'sorry - cannot open this file'
```

SHHHHHH! SHHHHH!

OR YOU WON'T HEAR THE SAMSUNG PRINTER COMPETITON!

To be read in a whisper!)

he new Samsung SP-2417 rinter is not only a first ate machine but is mazingly quiet. It's a 24 in dot matrix colour rinter that produces top lass printouts - almost ilently. None of that lattering away that you et with so many dot natrix printers, it just nutters gently to itself while naking all your printed tuff look professional uality which is ideal vhether you are at home or n an office.

he Samsung SP-2417 received a 0% rating from Gideon ("I hate heap noisy printers") Overhead in he review on page 33 of this ***AUI*** so ou can believe it's a really worth-vhile machine.

Samsung have kindly offered ***AUI*** eaders two of these excellent printers s prizes for our special "SHHHHHH" competition.

All you have to do is answer the following questions:

1. If you measure distance in metres, in what do you measure sound?

2. How do you start the self-test mode on a Samsung SP-2417 Quiet Printer?

3.How many character sets does the Samsung SP-2417 Quiet Printer have?

4.What do the letters "CPS" stand for?

5. Name a book, a film, TV programme, a song, a piece of music, a painting or sculpture (not all, only one of them!) that has the word "Quiet" in the title.

All correct entries will be placed in the Editor's hearing trumpet and the first two blown out will receive a Samsung SP-2417 Colour Quiet Printer.

Send your entries on a postcard - or on the back of a sealed envelope to: The Samsung "SHHHHH" Printer CompAmiga User International48-52 George StreetLondon W1H 5RF

Entries must reach AUI by November 30th 1994

(SHHHHHHH! Keep those entries quiet. I want to hear if the Samsung printer is running!)

THE VIDEO COLUMN

VIDEO PILOT FLIES AGAIN, cheers Alan Pusey.

Will the Phoenix rise out of the ashes? Only time will tell, but when we tested VideoPilot this time last year, we found it to be the best computerized video editing system for the Amiga – with an increasing number of satisfied users. Unfortunately, the people behind VideoPilot suddenly disappeared from the scene and the machine itself similarly vanished from the shelves.

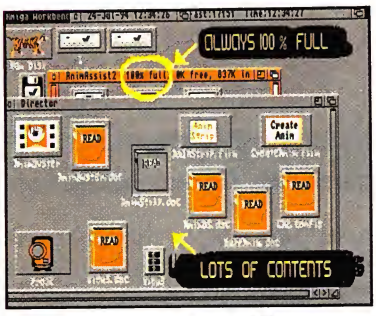
Allegedly – as they are apt to say on "Have I got News for You" – this was due to a financial tie-up with the Diamond Computer Group which fell by the wayside during this period. Whatever the reason, by the time you read this I am assured that VideoPilot will again be on the shelves of Tecno stores at the astounding price of £499 – bearing in mind that it was £1,300 a year ago and many people thought it well worth buying then. Tecno have bought up the remaining stocks and had the software upgraded. I could find no apparent difference in the upgraded program, but the file sizes were slightly different, indicating minor changes.

As far as I'm concerned, with the Scala Echo still not able to operate with much of the Prosumer equipment on the market, the VideoPilot is still currently the best buy for video editing, particularly at this price. You are able to use Scala and any other graphics package in conjunction with Video Pilot, after all.

Let's hope it has more success this time around. For further details, contact Tecno's Product Manager, Andy McCormack on 081 898 2772.

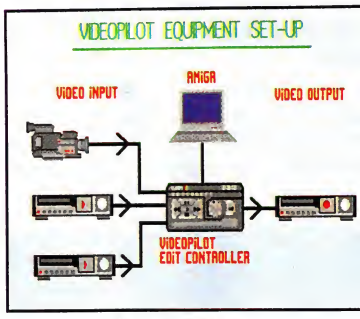
You may also wish to know of a superb new computer-controlled video editing suite that was recently opened at Tecno's Kensington store in London. It is packed with good kit and there is a professional on hand to give advice on the best set-up for you, from simple edit suites to full post-production centres. Having recently spent a very informative afternoon there, I can recommend it highly. Contact the manager, John Massey, on 071 602 5311.

A hundred-odd 'cycling' pics on disk #136.



Every disk packed 100%.

Video Pilot Flies Again.



The Video Pilot set-up.

Video Graphics Collection

It's been a year since I mentioned a very useful set of PD disks for video/computer users – the AMIGA VIDEO GRAPHICS COLLECTION – compiled by Geoffrey Williams of the AMIGA VIDEO-GRAPHICS GUILD in California. This is a non-profit organization for artists and videographers who use the Amiga creatively – for pleasure or business. If you want to know more, or join them, contact The Amiga Video-Graphics Guild, 1833 Verdugo Vista Drive, Glendale, California 91208 or phone U.S.A. Tel: 818 240 9845.

This collection now totals forty discs, plus a new, very useful catalogue disk – #00, which allows you to easily check through over four thousand video-graphic topics contained on the forty disks.

These disks are packed with a variety of multimedia programs and clips. In particular, I liked the following disks: #32, which contained some great colour cycling pictures, plus how to get 136 colours in hi-res. If you don't believe it's possible – get the disk! #29, entitled "Anim Assistant 2", which contains three interesting and useful programs 'Director', 'HD-Anim' and 'Effects' #23 contains some good rolling and spinning fonts, produced in the form of anim brushes, that I will be incorporating in some future multimedia presentations.

The Graphics Collection disks are just £2.50 each and available from Pete Graham, "82 Track Software" 11 Gordon Crescent, Hayes Middlesex, UB3 4QP or phone 08 848 7398 for further details.

School of Videography

Jessops have announced the date for their Autumn courses, held in the air-conditioned lecture theatre at Leicester.

"Understanding Camcorders and Accessories" – giving you an overview of every aspect of videography – will take place on 31st September, 29th October and 3rd December. The course is limited to thirty people and costs just £35 for the day, including lunch.

"Understanding Editing" – introducing you to the world of Post Production and covering enhancers, editors and computers – will take place on 1st October and 12th November costing £50 and limited to twelve people.

"Productions with Computers" – based on Amiga systems, of course, and showing you the latest in titling, graphics and editing technology – will take place on 15th October and 26th November, and costs £50 with a limit of twelve people.

All those dates are Saturdays and Jessops assure you that all the very latest equipment and programs from their vast stock will be available for 'hands-on' experience. For further information, or to book, contact your local Jessop Photo/Video Centre or phone Martin Wilson on 0533 320033.

AUI

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Directory Master 1.1   records = 38/4438   free memory = 18087224

3D                853512   Jan 27, 1991   3D:
3D-Designer 2     847168   Jun  9, 1992   3D-Designer 2:
3D-Designer       856440   Jan 27, 1991   3D-Designer:
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Animation         854488   Jan 26, 1991   Animation:
ARexx             854976   Jan 10, 1992   ARexx:
AudioManip        857416   Jan 27, 1991   AudioManip:
AudioManip2       854488   Jan 27, 1991   AudioManip2:
AudioManipIII     855464   Jul 10, 1992   AudioManipIII:
CAD               845216   Nov  8, 1991   CAD:
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CGVideoFonts      854976   Aug 20, 1992   CGVideoFonts:
CLIP              857416   Sep 20, 1991   CLIP:
Clips2            854976   Dec 12, 1992   Clips2:
FontTools         856928   Jan 27, 1991   FontTools:
FontTools2        851072   Feb  9, 1993   FontTools2:
Hypermedia        852536   Aug  7, 1992   Hypermedia:
IconToolKit       857904   Jan 27, 1991   IconToolKit:
ImageProc         857904   Jan 27, 1991   ImageProc:
ImageProc2        854976   May  9, 1992   ImageProc2:
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Part of the comprehensive data base detailing 4,438 topics covered in the series.

I suppose that it would be foolish to compare Lord British with anything really, but unfortunately, us Amiga owners have been left very high and dry when it comes to playing the Ultima games. Sure the earlier versions with the simple matchstick figures were available on Amiga, but the latest generation first person super duper double whammy versions are most definately not. So what does that leave us with then?

I found the Ishar series a more than suitable replacement under the circumstances with the busy cities of Ishar 2 maintaining the excellent atmosphere built with the lush forests of Ishar 1.

The latest and, in fact, last part of the tale, Ishar 3 carries on the story in before and after senario that has you bouncing back and forth across time in an effort to conquer once and for all the very very bad Shandar.

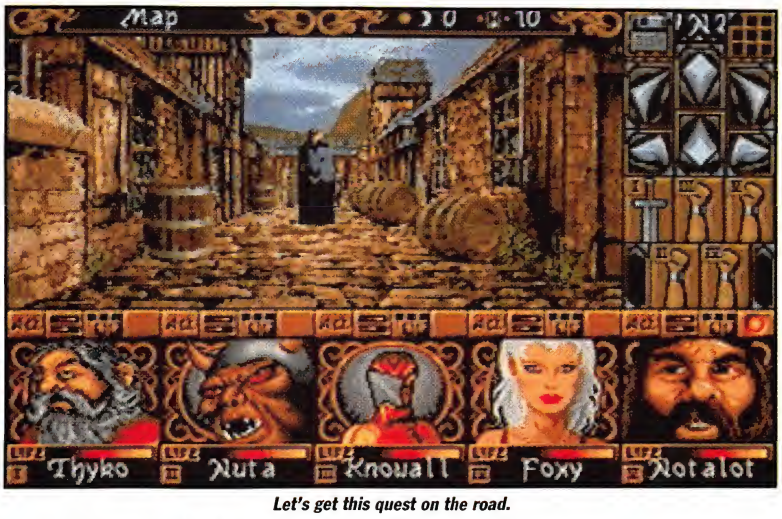
In the first adventure, you had to keep the Kingdom of Kendoria safe from the evil clutches of Wizard Shandar fighting and foraging until he ran away in defeat.

In the second chapter you took part in a daring raid against the now strong again Wiz across seas and vast continents and ultimately putting him to the sword.

A nice intro to a good game.

ISHAR 3

Silmarils/Daze £32.95



Let's get this quest on the road.

But as in all good soap operas, the guy is back again, albeit without his bodily form. Yes folks, in the tradition of Monkey Island 2, where the ghostly spirit of Captain Bluebeard is wreaking havoc, Ishar 3's resident baddie Shandar is in spirit form himself, (having created a spell before his death that put his vital energy into another being). That being, being Wohrafax, not the latest colour facsimile from Xerox but a deadly black dragon. This great dragon is not just the last in a line of deadly dragons, but just for good measure has the power of invincibility!

So, the mission is simple. You must find the dragon and kill it before Shanar can take over its mind, which will happen at the junction of the two moons, the Sun and the planet Ishar. This is all very well, but if old Fax is invincible how can you kill him?

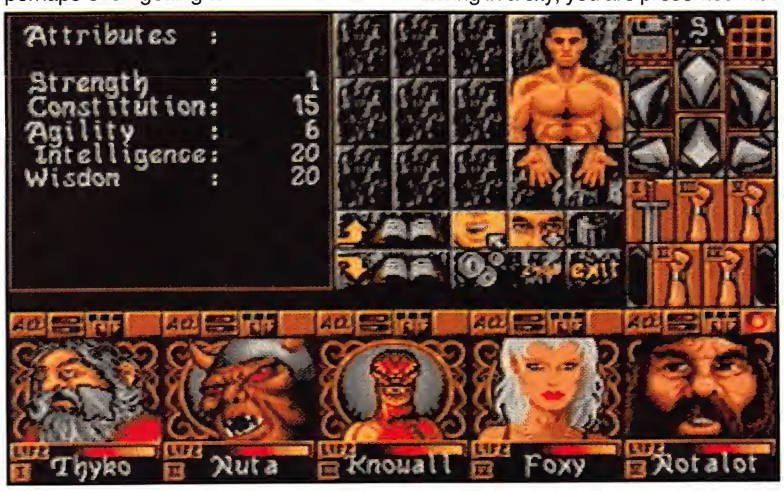
There good reader is the rub. Find out. You'll be popping backwards and forwards through time gates trying to be in the right place at the right time, perhaps even getting to Wiz before he casts THAT spell. (Is this a clue?) This gives the game designers plenty of scope to design loads of wierd and wonderful creatures for you to meet and do battle with including humans!!

Coming on six disks, the game is a worthy next step in design, some ten times bigger than the previous two, and with a greater graphical dependency. For instance, the major city is indeed a realistic place, with each building designed with something different on it, instead of the repetition that often befalls computer cities trying to give the impression of size. In fact, walk around it a few times and you'll start to recognise parts of it as if they were your own neighborhood.

Some great new features are included, the best being a mapping facility, which cuts out the aimless wanderings and gets you down to solving the quest. Arriving in a city, you are presented with a street map and as you walk through, important building and locations will appear on it for an instant guide to the high spots in town. Also gone this time are artist drawn characters, replaced instead with scanned photographs of real actors in costume. Gone too is the search for a party member game, replaced instead with the better and more standardised character generator routine which kicks in at the start of the game.

Hello darlin'. Come 'ere often, do ya?

Other than these cosmetic changes, the game plays the same as the other Ishars, and previous converts will feel quite at home with the icon controls. Silmarils have just improved what many people think is an already great program. A great buy in anyone's judgement.



My warrior 'Nuta' doesn't have very much in his hands, or in his head.

VERDICT

Graphics:	94%
Sound:	80%
Gameplay:	93%
Overall:	91%

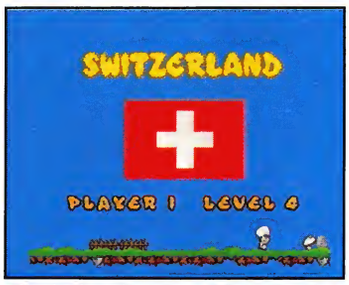
OUT TO LUNCH

Mindscape 25.99

Heh! It's just like the muppets, playing the chef (except he's French).

Food. A subject very close to my heart. Give me a roast dinner with all the trimmings and I'm anybody's. Mind you, food seems to be the order of the day at Mindscape these days what with Alfred Chicken, which was fowl without being foul.

Now they have ditched KFC for a French chef of all things. Not only that, he's a chef without anything to cook, because all his ingredients have er, run out of the kitchen and gone to distant lands!! This may be all very hard to believe, but without a plot as stupid as this you wouldn't have a game that is as good as this now would you.



Chasing ingredients around Switzerland is a strange way to spend your afternoon.

The main characters in this plot are the ingredients, which make up Pierre's recipes, carrots, mushrooms, cheeses, onions and poatoes, that sort of thing, and armed with just a net and bags of flour our gallic friend has to visit the countries of the world catching them and locking them in his cage.

In case you're thinking adventure here, forget it. It's the sort of platformer that Mindscape have made their own.

The baddies include rogue ingredients who chase you with deadly intent, like rotten potatoes who eat you alive, or nefarious tomatoes who squirt ketchup at you. The numero uno nastie is le Chef Noir who stalks about and releases your valuable cargo from the cage just when you're about to get to the end of the level.

Of course, differing countries have different foods, in Switzerland there's Swiss cheese, the West Indies has tropical fruits, and Mexico hot chilli peppers (is that a good name for a band?).

So far so good then. A cute platform game that has stirring music, colourful backdrops and beautifully animated sprites. But it does has flaws. There are some annoying clash detection glitches where you walk through some walls and get blocked by seemingly open paths, but so what, a minor scratch on an otherwise polished vinyl.

However, the gameplay is somewhat routine. On every screen, before you can start to round up your ingredients, you have to find the net, which is just lying somewhere obvious, as are the bags of flour, then you collect your bits and deposit them in the cage. Each time. On every screen.

There is a clock to race against though and this brings out the sense of urgency so lacking other platformers. There is also thoughtfully, a password routine which kicks in sensibly between countries. I liked that.

Fire breath and flour, together with hitting them with my mixer is the way to deal with these pesky tomatoes!

Not a classic then, but entertaining enough to dabble with on rainy days.

VERDICT

Graphics:	76%
Sound:	77%
Gameplay:	67%
Overall:	70%

Banshee

Core Design CD 32 £29.99

Top of the class with flying colours.

This game was written specifically for the new generation of Amigas, the A1200 and the CD 32. The A1200 version saw the light of day last month and had to be hailed as the best shoot 'em up for yonks.

As a clone, no gentic enhancement would be a better term, of 1942, Banshee stands alone.

It's has superb graphics and fast action. And it has oodles of power ups to make your nostrils flare with excitement. I'm still peeved that you can no longer shoot the woman with the pram as you could on the beta versions. Still some degree of taste has to be retained, I suppose. (I don't really, but we wouldn't want to upset anyone, would we?)

The CD 32 version is the same as the A1200, with extra sound and an intro added. The intro is just a set of images that you may as well skip and the sound is not greatly improved.

Ast the game was originally written for this type of machine, it's not really possible to complain that this is "Just another convert." It's the best vertical scrolling shoot 'em up on either the A1200 or the CD32. If you like this type of game, buy it.

VERDICT

Graphics:	85%
Sound:	80%
Gameplay:	85%
Overall:	83%

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CLOCKWISER

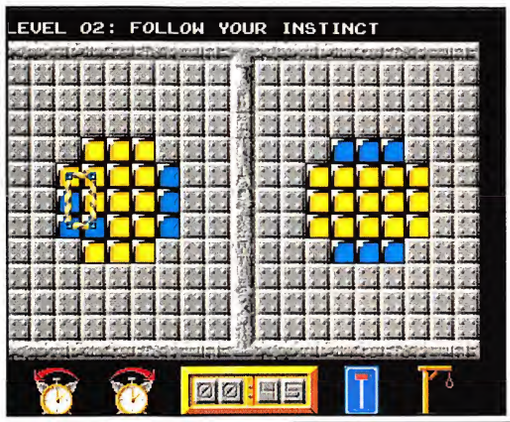
Rasputin £24.95

John Cleese's manic eyes gleam in insane fury as his car is hopelessly stuck in the mud. Banging the steering wheel in fustration he gets out and promptly slides ass upwards into the slimy smelly mud, coating him head to foot in the stuff. You can't help but scream in uncontrollable guffaws as... Wait a minute, if this is supposed to be a film tie-in licence, it has absolutely nothing to do with the film at all.

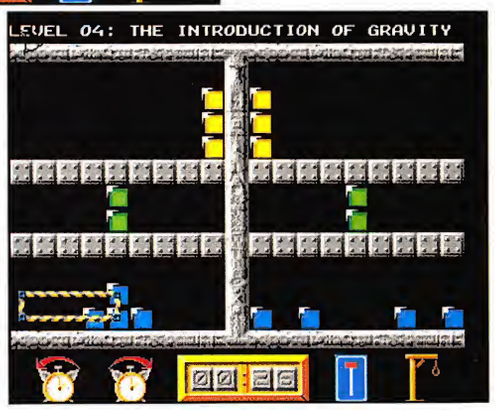
How can a load of little squares represent Cleese in all his crazed glory!

There are over 100 levels, placed into four groups of 25 each. Each group is harder than the preceding one and the first 10 levels of Easy Peasey mode are there to introduce you to playing the game and using all the elements. As you move through the levels you should find that each puzzle becomes more difficult yet more addictive.

The elements are varied. Gravity blocks float down if not supported from below; metal elements are immovable and indes-tructable, whilst brick ones can be moved and bombed. Bombs are there to be moved and to destroy other blocks, whilst diamonds when dropped self generate into multiples! Finally, transporter pods when used as a pair, will move one block from one pod to the other. It all gets horribly complex and utterly confusing on later levels but incredibly addictive.



Just match the pattern on the right



Oh dear, I think it all just got a bit more complicated

What a load of old rubbish, whoever negotiated this licence needs their head examined! (ED brings cool pre-cise logic to the preceedings by announcing to this hapless reviewer: "This is not about the FILM, CLOCKWISE, you idiot, it's just a new puzzle game called CLOCKWISER OK?")

So, what has happened to these puzzle games? Have they all gone out of fashion? I think our Amigas are perfect vehicles for them, and there have been some crackers in the past. Remember Virgin's addictive Sarakon, or Ocean's brilliant Pushover? These are the sort of games that you can sit down and just spend half an hour having a go, without jumping on platforms and playing joystick juggle. Games do follow trends and if this is at last the return of the puzzle game then I'm all for it.

Clockwiser, for what it's worth, is a clever one based on moving little bricks around in either a clockwise or anti-clockwise direction in order to match a pattern that is already presented to you on one side of your screen. Of course, there is a time limit and there are countless more complex additions, but this is the gist of it.

A great bonus is that you can design your own puzzles using the built in editor and makes for a grisly battle between friends.

Just take a look at screen number 110 and see if that ain't the business!!

VERDICT

Graphics:	70%
Sound:	82%
Gameplay:	82%
Overall:	79%

The main screen where you can access all your options.

Supremacy

Hit Squad £12.99 1 Meg

It's taken quite some time for this game to surface from the vaults as a budget title. I'm glad to say that it has done so now though and for a little over a tenner, you can get a great space conquest sim.

There is no hot paced arcade action in this game. It's pure strategy, but don't let that dissuade you.

You have four opponents to challenge, each time the objet is to crush them by taking over the planets in the sector. "Your will be done," as the legend on the box says.

To achieve your goal, you first need to ensure your base is stable. Build enviroment domes for food and orbiting power station for energy. Ensure that you get the tax rate correct in order to balance population growth against cash flow and food consumption. You'll also need to do some mining in order to get minerals.

Then, here comes the fun part. You need to generate your armed forces. Each unit consists of up to two hundred men and they can be armed to your specs. There's little point sending out a set equiped only with jungle boots, no matter how Arnold Schwarzenegger might do it. Equipped with a personal force field and rocket launcher each, your men are more likely to succeed.

Then, it's time to conquer a world and set up a new colony. When battle starts, your men can be encouraged to fight more recklessly and finish off the enemy quicker by bumbling up their agression. More die this way though.

It's a great game but perhaps a little shallow for today's standards. To dictate population growth by a tax rate is a very crude system. Supremacy is a good game, which may apeal to novices in the field, who won't be disappointed, or to pros who'd like some light relief.

Let's send the men berzerc.

VERDICT

Graphics:	78%
Sound:	82%
Gameplay:	85%
Overall:	82%

"It's a Game of 2 halves"

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It's a Funny

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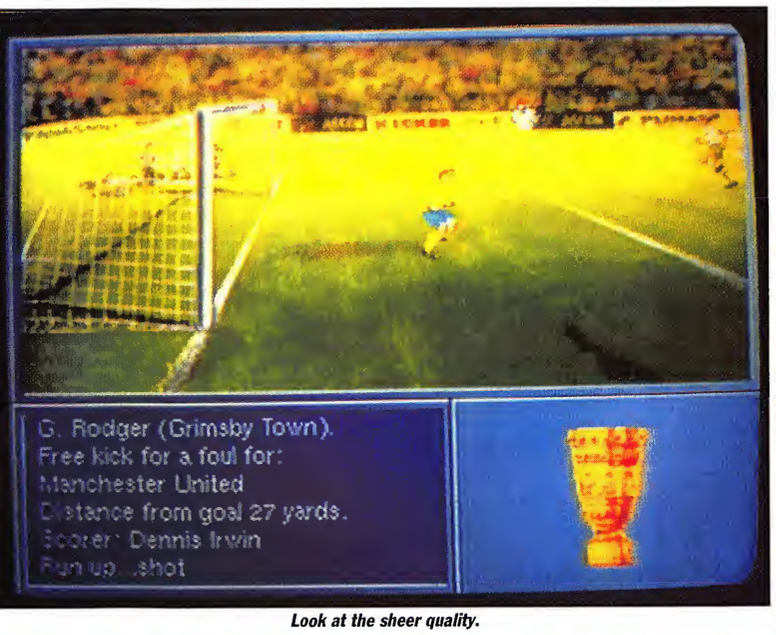


Look at the sheer quality.

ON THE BALL

Daze/Ascon £29.99

Well, it seems our Teutonic friends from the Fatherland have done it again. How is it that foreign software companies manage to put out better versions of English subjects than we can?

The French did it with Infogrammes' Jumping Jack Son, based on English rock music - simply the greatest puuzle game of all time; the Americans did with their many golf games - and what do we have - Ocean's Ryder Cup, ha!! And now the Germans have done it with On The Ball, a stupifying blend of footie management and live action that is the nearest yet to the real thing - and it's based on the English Premier League!!

I've never seen a managemenet sim look so good before.

Well, allright, this is the UK version of Anstoss, which has topped the German charts for over a year, but my point remains the same. Instead of companies falling over themselves to copy each others pro-duct, learn from our international brothers, and try something thoroughly original on a familiar theme.

On The Ball has had a development team of over 20 people and it shows. It has features that include a live running commentary, 4 player interaction that enables the TV coverage to flash to each player's match as it is taking place and a panel in screen that gives you the updated scores of other matches involving clubs near your league position, during your match. But this is just the starter to your feast, because the main course is the graphical presentation.

Using the technique of scanning actual illustrations frame by frame and then recolouring them using airbrushed watercolours, two illustrators spent three months on the action sequences and produced over 420 different animated sequences. These include shots at goal, corners, penalties, fouls, injuries and, of course, goals - all seen from different angles and different views points in the stadium. This is something quite new and so realistic it's not true.

With all this pretty dressing one might assume that the real important factor in any management sim - the actual game engine itself - is sacrificed. Not so.

The game engine that drives the real game doesn't suffer because of these lovely pics.

The user interface is extremely comprehensive, with easy to digest bar graphs and well presented information screens. The data is plentiful, more than enough for the purist footie managers among you, from negotiating players contracts and sponsorship deals to organising training and picking the most in form players.

You must decide on your team's line up and who becomes the playmaker, taking free kicks and pen's, the tactical position of each player and organising specific training programmes that respond to your player's performances on the field. Team playing style is optional, from brutal to defensive and you can even factor in the offside trap and playing for penalties.

You will, of course, quickly learn that there is more to being a successful club manager than winning matches. Day to day decisions on match prices, stadium improvements, players wages, medical finance, transfer dealings and even conducting interviews are all part of the job.

Everything about this game has quality stamped all over it. The main screen is your office, a comfortable and attractive place overlooking the stadium below, and it conceals 12 sub menus which are actioned by clicking on various parts of the office. These are your passports to your team selection, tactics, opponent info, finances, cups etc.

On The Ball gives you ten years in which to prove yourself with the ultimate prize becoming England team manager. Take your own favourite league club and get stuck in.

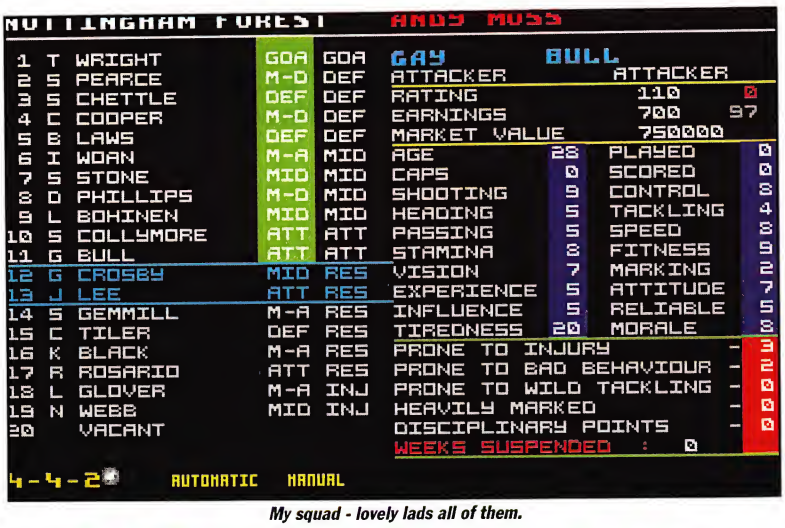
The running commentary shows how polished this game is.

This is without doubt the best footie management sim for years, and with a World Cup edition out as well, kicks everything else into touch. Believe it!

VERDICT

Graphics:	98%
Sound:	92%
Gameplay:	95%
Overall:	94%

Old Game!



My squad - lovely lads all of them.

TACTICAL MANAGER

Black Legend £24.95

Lets go back in time a bit. About three years ago, a chap by the name of Camy Maertens wrote a footie management sim from home and was really quite proud of his effort. So much so that he stuck some ads in some of your favourite computer mags and began to sell a tidy sum of mail order games.

Growing in confidence and not to mention a faithful following, he tweaked the program every so often, and thoughtfully sent out replacement up dated programs to his customers. He even sent me a copy. Now, for a mail order game this sim was really quite good. OK, it didn't have a pretty loading screen, or fancy music, but it did have an impressive engine that calculated matches at the speed of light and contained plenty of features to keep budding El Tels busy for many an evening.

It now seems that Camy has gone commercial and his footie sim Tactical Manager is now freely available in the high street courtesy of Black Legend. But this is the same game exactly, the only difference is it now has a loading screen and a big fancy box to carry it in with the legend 'The future of football management is in your hands' across it. But so what, you may ask, as long as it's a good game there's no problem right? Wrong. A three year old game should not be sold at full price, no matter what the marketing cost. And when you compare this game to say the stupendous 'On The Ball', with all its graphic and statistic glory, there can only be one winner.

My one real criticism of these management sims is that in real life, players just don't have point values. Alan Shearer is an all round super striker whose abilities are not broken down into the 17 different sections that make up a footballer. He's in your team because of his pace, goal getting and defenders attention.

The match programme with all the facts and figures.

Eric Cantona is in because of his sheer class and Vinny Samways isn't because he can't cut it anymore!

These are the things that managers see in training and on the field, not a bunch of numbers and this is where every footie sim has let me down. And yet after all this, no matter what team I pick, however greater the overall team number is to the opposition, they still lose!

Audiogenic are working on a sim that uses fictional players, but each one has a personality and skill that you as the manager must learn about. This is to me the only real way to provide a realistic management game and until this happens, games like Tactical Manager will continue to bore the pants off me.

However, for those of you content to carry on regardless, Tactical Manager is a kind of low version of Domark's Championship Manager, but without the wait. It is fast, although whatever division you are in, you have to sit through all the results each match. You begin with a rating of three as a manager, which lets you apply for a job in one of the lower divisions and performing well gives you the chance to change clubs for the better. Watch out though, because four straight defeats and you're sacked! During a match you can alter your tactics, which vary from through balls to high crosses, and from man to man marking to falling in the box, and of course you can swap your players around accordingly.

Frustratingly, there is no way of increasing your income apart from selling players and getting sponsers, you have no say in the training of your players, although a visit to the physio can result in some extra fitness points, but these visits are limited to ten a season.

What is fairly exciting though is the ball by ball commentary during the match where penalty and free kick incidents whilst not being shown graphically do have a nail biting atmosphere af their own.

Finally, the game doesn't recognise a second drive which for a commercially produced product is an oversight that cannot be ignored.

Not breaking any new ground then, Tactical Manager is at best a journeyman game that has its feet planted a few years ago. My advice is to go get On The Ball, or at least Audiogenic's newie.

The match screen, looks like we're holding our own.

VERDICT

Graphics:	45%
Sound:	N/A%
Gameplay:	76%
Overall:	45%

It's a Funny Old Game!

Part Two

Live Action!

As we bask in the lovely afterglow of a steamingly superb World Cup XV and confront the new footie season, Ashley Cotter-Cairns organises the king of all Amiga soccer tournaments.

If each of the current favourite Amiga soccer games played each other, which would win? Dyed-in-the-wool game freaks will yell "Sensi!" at the top of their newly-broken voices and, until the World Cup appeared, their money would be safe. But fabulously wealthy (or extremely lucky) people like me - place your bets as to my status - have had the chance to try all of the current games and make their own minds up in an intelligent (gasp!), unbiased (snigger) and purely scientific way. And Steffie Graf won this year's Wimbledon Mixed Singles final against Andre Agassi.

So I am the mug who decided to do the impossible: to separate the hype from the reality, to boldly tread where no reviewer has trod before and... to find out if Sensi 1.2 (the 'limited edition' for the World Cup) was going to sweep the world before it as expected, or if some of the young pretenders or old faves might have an ace or three up their mysterious sleeves.

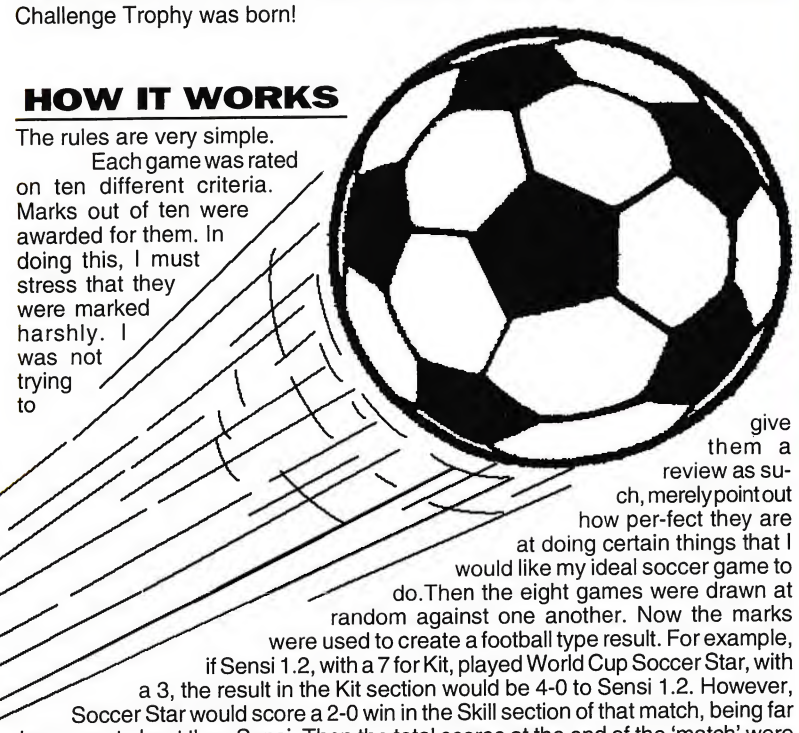
To do this, it was obvious that I needed a plan. And a highly cunning one at that. Because, unlike my previous Amiga *vs* Amiga chess tournament, I couldn't just sit down with two Amigas and ask them to play one another. It wouldn't work. The CD32 refused to associate with my old A500 and the A1200's arms weren't long enough to hold a joystick.

Something had to be done. And so I came up with the most ingenious set of rules since the LBW law was introduced into cricket. The ***AUI*** Soccer Challenge Trophy was born!

HOW IT WORKS

The rules are very simple.

Each game was rated on ten different criteria. Marks out of ten were awarded for them. In doing this, I must stress that they were marked harshly. I was not trying to give them a review as such, merely point out how per-fect they are at doing certain things that I would like my ideal soccer game to do. Then the eight games were drawn at random against one another. Now the marks were used to create a football type result. For example, if Sensi 1.2, with a 7 for Kit, played World Cup Soccer Star, with a 3, the result in the Kit section would be 4-0 to Sensi 1.2. However, Soccer Star would score a 2-0 win in the Skill section of that match, being far less easy to beat than Sensi. Then the total scores at the end of the 'match' were added up to produce the result.



BITS AND BOBS

Before I show you how I rated the games, I'll explain the categories on which they were judged.

THE KIT - How well each game was turned out. In other words, the visual excellence (or lack of it). Were jaws unhinged at the sight of pixually-muscled soccer players jogging out onto a grass so realistic you could almost smell it? Or was the smell somewhat less pleasant?

THE CHANTS - Will the games leave you deaf, or feeling dumb for having bothered to twiddle the volume control at all?

PACE - A measure of the game's speed. Could a snail run rings around your star centre forward? Is the ball so fast that it's out of play before you get to see it? Do you have to wait hours every time the ball goes out of play?

XTRAORDINAIRE - Soccer's soccer, no matter what it wears or how it speaks. So what little add-ons were included to make each game special?

P-O-W-E-R - Were the games blessed with better features than Cindy Crawford, or totally devoid of any thoughtful inclusions?

SKILL FACTA - Not everyone has any friends, so how tough were the computer opponents? And if they were hard to beat, was this a negative aspect of the gameplay?

PEDIGREE - Would each game stand out in the crowd? Would people buy it if its name were stapled to a bag of fresh horse manure?

BRASILNESS - Was playability superb, or sadly scrappy? Were gamesters turned on, or Amigas turned off?

SEASON TICKET - How long would each game keep you coming back to the turnstiles? Or would they go out in the first round-the-clock session?

TRANSFER FEE - If you bought the games, would you have been sold an injured, ageing QPR defender or a blisteringly brilliant Brasilian?

YOU HUM IT, I'LL PLAY IT.

If you'd kindly begin gently singing the national anthems for Italy, England, USA, um, March in Cambridgeshire, Northampton, Manchester, Oxfordshire and Barnet, I'll introduce you to the teams.

Name: Sensible Soccer V1.2

Other names: World Cup Limited Edition
By: Sensible Software
Price: £19.95 new, £8 upgrade from V1.1

Possibly the most famous and certainly the most successful soccer game to hit the Amiga, Sensi as it is lovingly known is the undoubted favourite to win this competition. With sales of over 180,000 copies, it is also the favourite of a few bank managers.

Hot favourite Sensi out for another season.

THE KIT	7	Small sprites, but well drawn and colourful
THE CHANTS	6	Very noisy, lots of sampled crowd FX, sometimes tinny
PACE	7	Quick little men dash everywhere
XTRAORDINAIRE	5	Only a card-weilding referee to spice things up
P-O-W-E-R	8	Lots of nice competitions and custom cups and leagues
SKILL FACTA	4	Once you learn the moves, the computer is dogmeat
PEDIGREE	10	The most famous, the best-selling
BRASILNESS	8	Very playable indeed
SEASON TICKET	8	Lots to try out, including ridiculous team names
TRANSFER FEE	8	£20 well spent
TEAM RATING	**71**	**Odds-on favourite**

Sensi raising a roar from the crowd

Goal! Enough to take out Kick Off 3.

Name: Goal!

Other names: Long rumoured to be Kick Off 3 in disguise
By: Virgin Games and Dino Dini
Price: Officially £25.99, widely discounted

Dino Dini is the brains behind the extremely successful Kick Off series. When Goal! appeared, he was supposed to have been writing Kick Off 3 for Anco, so his switch to Virgin raised a few eyebrows.

oal! Not the most astounding game.

THE KIT	7	Fat, physical players, but pitches are a bit drab
THE CHANTS	6	Noisy crowd but few real chants as such
PACE	7	The fast teams are very nippy indeed
XTRAORDINAIRE	7	Swithcy pitches, zoom mode and more
P-O-W-E-R	6	Plenty to do, including Arcade Challenge mode
SKILL FACTA	5	Not much harder than Sensi, when you know how
PEDIGREE	7	Dino Dini helped things a lot
BRASILNESS	7	It can be a lot of fun, even alone
SEASON TICKET	6	Will wear off pretty fast
TRANSFER FEE	7	Depends how much you buy it for
TEAM RATING	**65**	**A touch long in the tooth now**

Name: Sierra Soccer

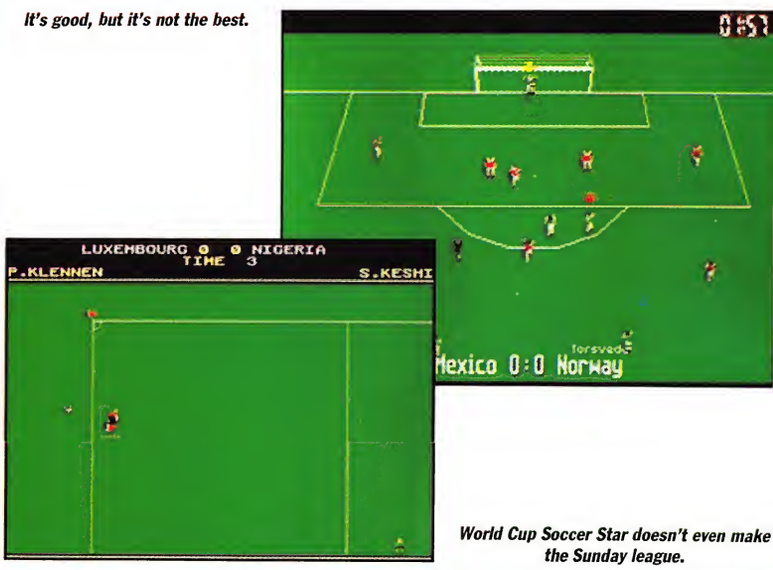
Other names: World Cup Edition
By: Sierra
Price: £19.99

Sierra Soccer has not been around for long. No-one knew what to expect from a company which is most famous for Kings Quest and similar adventure games. Consequently, this game is a pleasant surprise, very pretty and a tad slow. Like most Sierra games, in fact.

Back on the scene with a new game, Sierra challenges.

THE KIT	9	Superb graphics, marred only by netless goals
THE CHANTS	6	Very whistly, like a crowd of asthmatics
PACE	5	A bit treacly
XTRAORDINAIRE	6	Ref, stretcher bearers and a nice replay mode
P-O-W-E-R	5	World Cup and that's yer lot
SKILL FACTA	7	Hard to beat the Brasilians at this game
PEDIGREE	2	None to speak of, little hype
BRASILNESS	8	Smooth, addictive, gripping
SEASON TICKET	6	Not enough depth to be an epic
TRANSFER FEE	8	Great game, great price
TEAM RATING	**62**	**Strong challenge from the States**

It's good, but it's not the best.



World Cup Soccer Star doesn't even make the Sunday league.

Name: World Cup Soccer Star

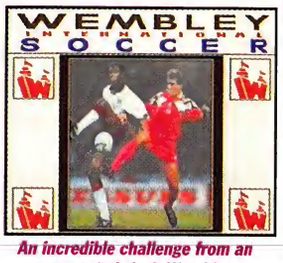
Other names: unprintable
By: B.U.B. Software
Price: £9.95

The cheapest contender here and boy, does it show. Sold initially at £19.95 during the World Cup month, the game is halved in price to shift stocks. Maybe. If you don't read a review or play it first.

THE KIT	3	This mark is rather generous
THE CHANTS	5	Probably the best part of the game
PACE	4	Not turbocharged
XTRAORDINAIRE	1	It comes in a box
P-O-W-E-R	2	Less features than an analogue aardvark
SKILL FACTA	6	Really tough to play, really tough to justify the time
PEDIGREE	0	A couple of ads in some magazines
BRASILNESS	2	Not awe-inspiringly Romario, more like Dung(a)
SEASON TICKET	1	Erm, next question...
TRANSFER FEE	2	And that's twice the mark it would get at £20
TEAM RATING	**26**	**Lucky I didn't buy it, chaps**

Name: Wembley International Soccer

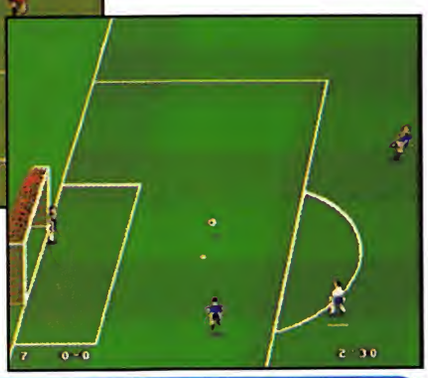
Other names: "It's by Audiogenic, isn't it?"
By: Audiogenic
Price: £29.99
If you can't buy a team or a player, why not buy a stadium? That's Audiogenic's idea and it looks quite a good move. The dark horse in this competition, as no-one knew much about it before it hit the doormat.



An incredible challenge from an unexpected rival, Wembley.

THE KIT	7	A bibbly bobbly ball, good pitches and nice characters
THE CHANTS	7	A varied selection of yells and bellows
PACE	7	Fast enough for me, thanks
XTRAORDINAIRE	8	Picture-in-picture passing and lots, lots more
P-O-W-E-R	8	Too much to condense into a little box like this
SKILL FACTA	6	Computer teams can be beaten with a little practise
PEDIGREE	7	Wembley is a famous place
BRASILNESS	7	Loved the control system, eventually
SEASON TICKET	8	Will continue to be exciting for weeks
TRANSFER FEE	7	Won't leave you feeling cheated
TEAM RATING	**72**	**We could be in for an upset here...**

Still riding high, Wembley marches on.


Kick Off 3 gets the boot.

Name: Manchester United

Other names: Premier League Champions
By: Krisalis
Price: 29.99
Everyone knows that the Red Weavils, sorry, Devils, won the double last season. Shame about Aston Villa, eh lads? But this game, the third Man Utd title from Krisalis, has a lot going for it, including the revolutionary Tactigrid.

THE KIT	7	A bibbly bobbly ball, good pitches and nice characters
THE CHANTS	7	A varied selection of yells and bellows
PACE	7	Fast enough for me, thanks
XTRAORDINAIRE	8	Picture-in-picture passing and lots, lots more
P-O-W-E-R	8	Too much to condense into a little box like this
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SEASON TICKET	8	Will continue to be exciting for weeks
TRANSFER FEE	7	Won't leave you feeling cheated
TEAM RATING	**72**	**We could be in for an upset here...**

Name: Kick Off 3

Other names: "At last!"
By: Anco
Price: £29.99
This is the REAL Kick Off 3. Steve Screech, the co-star with Dino Dini of Kick Offs past, comes back with the best-looking version yet. The A1200 title is the first one released - nice to see 32-bitters catered for.

The long awaited Kick Off 3.

THE KIT	8	Excellent all round, especially the pitch
THE CHANTS	5	They get a bit confused and have a small vocabulary
PACE	4	Ooooh Gawd! S-L-O-W-E-R than Gazza
XTRAORDINAIRE	7	Celebrations after goals and lots of snazzy moves
P-O-W-E-R	6	Good stuff marred by poor menu system
SKILL FACTA	6	Tough to beat the computer
PEDIGREE	9	Kick Off 2 was the Sensi of the last soccer wave
BRASILNESS	5	That speed ruins it. You also need a 2-button 'stick
SEASON TICKET	5	I won't be coming back to this in a hurry
TRANSFER FEE	5	Can't recommend it, I'm afraid
TEAM RATING	**60**	**Rushed out for the World Cup, was it?**

Name: Empire Soccer

Other names: Only one and I can't tell you who said it
By: Empire
Price: £25.99
Another unknown game which appeared to cash in on the World Cup. Apparently a demo appeared on the front of a German computer mag and an industry figure (who will remain nameless) had a few choice words to say about it. They are in the dictionary under B and F. I don't think it's all that bad and it's certainly different.

Good enough to qualify and through to the quarter finals, Empire.

THE KIT	7	Big, colourful players on a seemingly small pitch
THE CHANTS	6	Noisy, but not very imaginative
PACE	7	Sometimes it's too quick
XTRAORDINAIRE	8	Superpowers are great, cameos are sad
P-O-W-E-R	7	Random World Cup is useful
SKILL FACTA	7	Sometimes it's easy and sometimes not so easy
PEDIGREE	3	Less history than a cranefly
BRASILNESS	5	Irritatingly quick and fiddly at times
SEASON TICKET	6	Enough to keep you playing for a while
TRANSFER FEE	6	If you like it, great, but if you hate it...
TEAM RATING	**62**	**Like an arcade slot machine footy bash**

THE DRAW

This was done by placing one disc from each game into a bag and pulling them out one by one. No favouritism was shown and this method was purely scientific. Just like the refs in World Cup USA '94, our judgement is utterly sound...

QUARTER FINALS

1	Sensi V1.2	v	Manchster United
2	Soccer Star	v	Wembley Soccer
3	Goal!	v	Kick Off 3
4	Empire Soccer	v	Sierra Soccer

After round one, the draw will be random for the semis.

MATCH 1
Sensi v Man Utd

What a start to the contest. The favourites of the computer world against the favourites of anyone sad enough to buy a t-shirt. There's hope for everyone else here. Read on...

	SENSI	MAN UTD	RESULT
THE KIT	7	6	1-0
THE CHANTS	6	6	0-0
PACE	7	7	0-0
XTRAORDINAIRE	5	7	0-2
P-O-W-E-R	8	8	0-0
SKILL FACTA	4	7	0-3
PEDIGREE	10	9	1-0
BRASILNESS	8	6	2-0
SEASON TICKET	8	7	1-0
TRANSFER FEE	8	6	2-0
THE RESULT			7-5

Sensi goes through to the semi-finals... but only just. United were looking good for the win until the last four categories.

MATCH 2
Star v Wembley

Again, expect only one winner and this time the margin is exactly as big as you'd imagine.

	STAR	WEMBLEY	RESULT
THE KIT	3	7	0-4
THE CHANTS	5	7	0-2
PACE	4	7	0-3
XTRAORDINAIRE	1	8	0-7
P-O-W-E-R	2	8	0-6
SKILL FACTA	6	6	0-0
PEDIGREE	0	7	0-7
BRASILNESS	2	7	0-5
SEASON TICKET	1	8	0-7
TRANSFER FEE	2	7	0-5
THE RESULT			0-46

All records for this competition have just been broken. Whoopee. Wembley now goes on to meet the perils of the semi-finals. The biggest surprise is that Soccer Star was ever released at all.

MATCH 3
Star v Wembley

The oldest player versus the youngest. What will prevail - youth or experience?

	GOAL!	KICK OFF	RESULT
THE KIT	7	8	0-1
THE CHANTS	6	5	1-0
PACE	7	4	3-0
XTRAORDINAIRE	7	7	0-0
P-O-W-E-R	6	6	0-0
SKILL FACTA	5	6	0-1
PEDIGREE	7	9	0-2
BRASILNESS	7	5	2-0
SEASON TICKET	6	5	1-0
TRANSFER FEE	7	5	2-0
THE RESULT			9-4

Kick Off 3 is the biggest disappointment here. The Dino Dini factor is completely missing. Steve Screech should retire to a career in the post office.

MATCH 4
Empire v Sierra

In the battle of the software houses, which will come out on top? This one is probably the closest match so far.

	EMPIRE	SIERRA	RESULT
THE KIT	7	9	0-2
THE CHANTS	6	6	0-0
SEASON TICKET	6	6	0-0
TRANSFER FEE	6	8	0-2
THE RESULT	7-7		

This match goes to a penalty shoot-out!

Gameplay is all in footy games. The three categories which most effect gameplay are Brasilness, Skill Facta and Pace.

PACE	7	5	2-0
SKILL FACTA	7	7	0-0
BRASILNESS	5	8	0-3
AFTER PENALTIES			2-3

So Sierra just scrapes through against a very strong challenge. Bad luck to Empire... but the lads done well.

SEMI FINALS

1 Sierra Soccer v Sensi 1.2
2 Goal! v Wembley Soccer

MATCH 1
Sierra v Sensi

Will Sierra knock the favourites off of their pedastal?

	EMPIRE	SIERRA	RESULT
THE KIT	7	9	0-2
THE CHANTS	6	6	0-0
PACE	7	5	2-0
XTRAORDINAIRE	5	6	0-1
P-O-W-E-R	8	5	3-0
SKILL FACTA	4	7	0-3
PEDIGREE	10	2	8-0
BRASILNESS	8	8	0-0
SEASON TICKET	8	6	2-0
TRANSFER FEE	8	8	0-0
THE RESULT			15-6

It's a bit unfair on Sierra here. Its relative lack of profile lets it down. Without that defeat, it would have been much closer. But Sensi marches on.

MATCH 2
Goal! v Wembley

I'm predicting a win to the newcomer here.

	GOAL!	WEMBLEY	RESULT
THE KIT	7	7	0-0
THE CHANTS	6	7	0-1
PACE	7	7	0-0
XTRAORDINAIRE	7	8	0-1
P-O-W-E-R	6	8	0-2
SKILL FACTA	5	6	0-1
PEDIGREE	7	9	0-2
BRASILNESS	7	7	0-0
SEASON TICKET	6	8	0-2
TRANSFER FEE	7	7	0-0
THE RESULT			0-9

Wow! Goal! is outplayed in every department. Wembley goes to the final... to be held at Wembley. I just love unbiased games.

THE FINAL:
Sensi v Wembley

Here is the moment you've all been waiting for. THE GRAND FINALE!

	SENSI	WEMBLEY	RESULT
THE KIT 7	7	0-0	
THE CHANTS	6	7	0-1
PACE 7	7	0-0	
XTRAORDINAIRE	5	8	0-3
P-O-W-E-R 8	8	0-0	
SKILL FACTA	4	6	0-2
PEDIGREE 10	7	3-0	
BRASILNESS	8	7	1-0
SEASON TICKET	8	8	0-0
TRANSFER FEE	8	7	1-0
THE RESULT 5-6			

WEMBLEY INTERNATIONAL SOCCER WINS THE AUI SOCCER CHALLENGE '94 TROPHY! Jolly bad luck to Sensi, which was a worthy favourite. The trophy will be awarded at a later date.

A FINAL WORD

This competition cannot really capture the feel of each game. Don't take it as read that, because Wembley won our little challenge it's the best game for you. Very few of the games here play in a similar way to each other. Most have a unique style of their own and should be tried out before you commit any cash to buying them.

Wembley is for me the best-designed piece of soccer software to date. It incorporates a lot of interesting control features and this makes it very playable in a grandstand fashion. Unlike Sensi, for example, the game doesn't end with a series of moves which you can practise. The other players run off the ball and create openings for you, which is controlled using the one-touch passing and one-touch sequence features. Shooting is not just a matter of kick and hope. You have to wait for the arrow to point in the right direction. This means holding possession by retaining the ball as much as possible. Very realistic and much more skillful.

Wembley wins then, but don't ignore the new blood in Sierra and Empire. They are as alike as chalk and cheese, but both have a lot going for them. Empire is more original, but Sierra is more playable in my opinion. Its lack of features is a major let-down, but a more conventional league version is apparently planned soon. Should be brilliant.

And Soccer Star... Well, it's s.... Say no more.

THE PD STAKEOUT

Scoring

The marks awarded to each PD disk are based purely upon its own merits and, of course, our personal views. Value for money and reliability are also taken into account as well as features and quality of the software.

Compatibility

The PD disks reviewed in this issue were tested on an A500 with Kickstart 1.3, an A500+, an A1200 and an A3000. However, please check with your PD supplier that the disks you are ordering are compatible with your Amiga.

PD or ShareWare?

All freely distributable software comes under the rather deceiving umbrella of "public domain". Quite a lot of this software is, in fact, shareware. Shareware means that if you like the software, or use it regularly, the author will request a reasonable donation from £5 to £20. There is usually a note on the disk informing you if the software is shareware or regular PD. Whether or not you send a donation to the author depends totally upon your level of conscience and morals. Remember, if you send a donation to the author, you may receive an updated version of the software. Even if you don't receive an update, you will have given the author the incentive to continue contributing into the public domain.

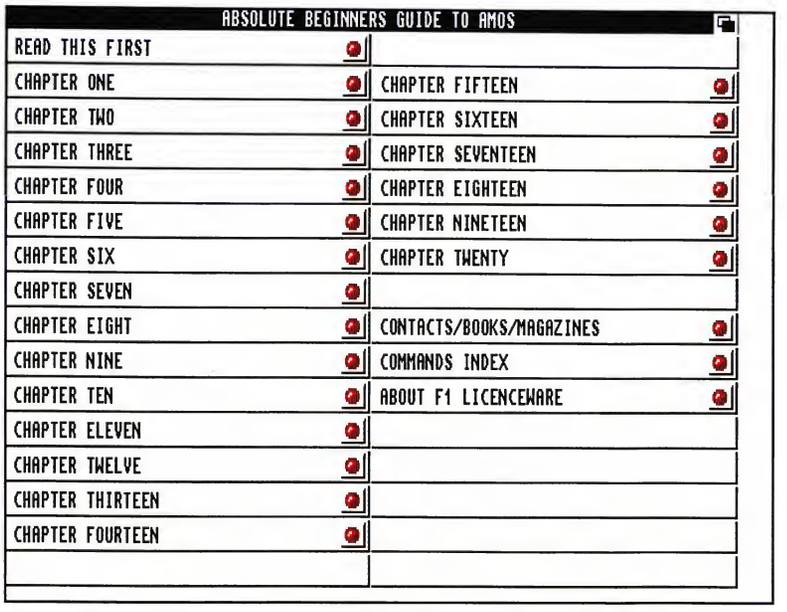
Absolute Beginners Guide to AMOS

Disk F1-003
F1 Licenceware

This is really a specialised disk. The only people I can see wanting it will be those who have just bought a copy of AMOS and haven't a clue where to start, or perhaps find the manual a little daunting.

Help is at hand, this disk is very well written and informative. It is essentially a number of text files organised into chapters. At £3.99 it isn't cheap – in PD terms – but the text is well researched and a lot of work has gone into it. There are a number of example programs which help you understand how certain programming routines work. The presentation is perhaps too simple as menumaster is used. This does the job but has rather a boring look, it would have been better – an more natural in the circumstances – if a program written in AMOS had been used.

70%



KNIGHTS

Disk G397 NBS

Knights is a two player game in which you play a knight (not surprisingly) and have to wander deep into dangerous dungeons to perform certain tasks.

The game includes: almost 250 dungeon floorplan bases which allow an almost infinite number of different dungeons. It has excellent sound effects and nice violence. The corpses and gore do not vanish. There is flexible quest customisation and some creatures with agreeable sounds and fancy tactics.

There are several quests from which to choose but all involve having to find objects such as gems and/or books and then to escape the dungeon with them.

The action is viewed from above and and looks similar to the later Ultima games. The screen is split into two halves with one player on each side.

The author suggests that you set up some sort of divider down the centre of the screen to stop each other seeing what the other is doing but in practice this is almost impossible to achieve. Knights is a fun game to play but the controls take a bit of getting used to.

85%

RELICS OF DELDRONEYE

Disk F1-018 F1 Licenceware

You are a royal explorer who has to recover the lost treasures of Deldronis. These are known by everybody else as the Relics of Deldroneye. You are making good progress when you are hit over the head and wake up a day later accused of the theft of the treasure and are thrown into a dungeon. (Probably what the Government used to call "the short sharp shock treatment")

People who liked the Monkey Island games will certainly enjoy this. It is very similar as you can see your character on the screen and he can be moved around by clicking on different parts of the screen with the mouse.

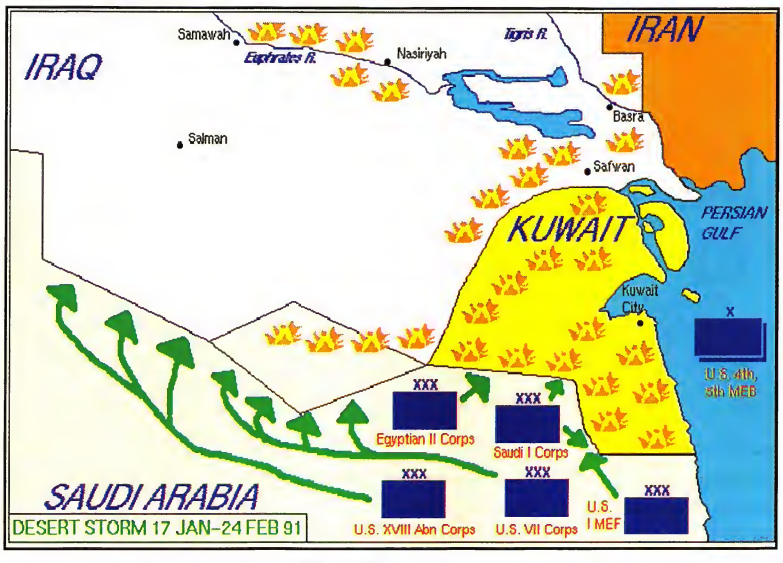
When your mouse touches objects on the screen, their names appear by the pointer. They can be picked up and used and given to other characters.

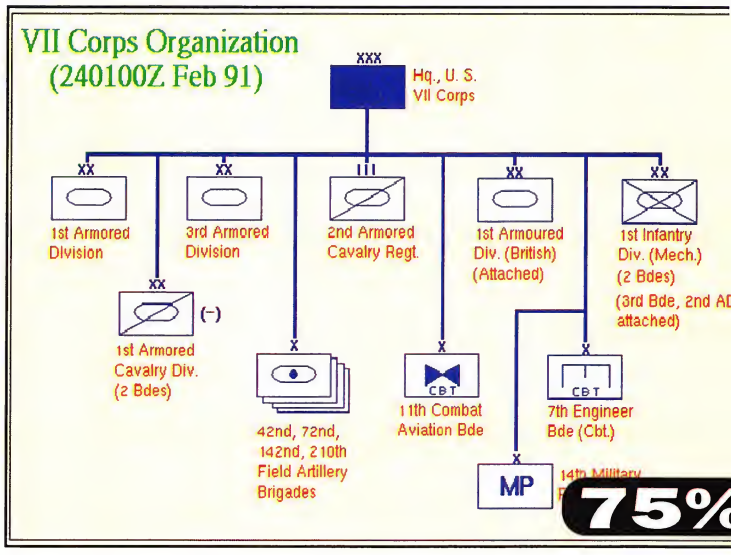
The system works very well, and I would think it would be a difficult thing to program especially in AMOS, but the author seems to have managed it. This game comes on four disks and is Licenceware which means that some of the £6.99 which is being asked goes directly to the author. It also requires two megs of chip RAM to run.

66%

DESERT STORM

Disk U350 Scribble PD



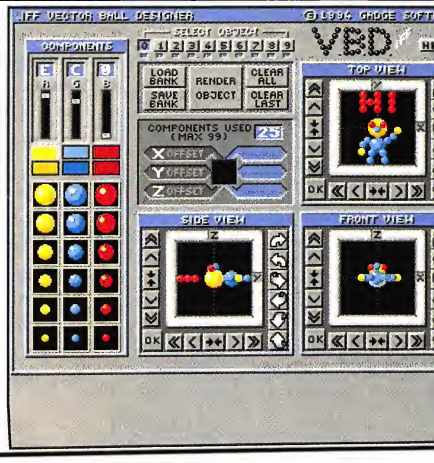


75%

This Hyperbook presentation describes Operation Desert Storm in a very detailed fashion. It advances through the battle almost day by day describing what happened and providing situation maps for you to view. There are also several organisational charts showing you how coalition forces were organised prior to the start of the gro offensive. The maps are well d and in crisp Hi-Res. You can through the text in about 5 mir but it is a good disk to keep reference. As is obvious, for war rather than pacifists.

IFF VECTOR BALL DESIGNER

Disk F1011 F1 Licenceware

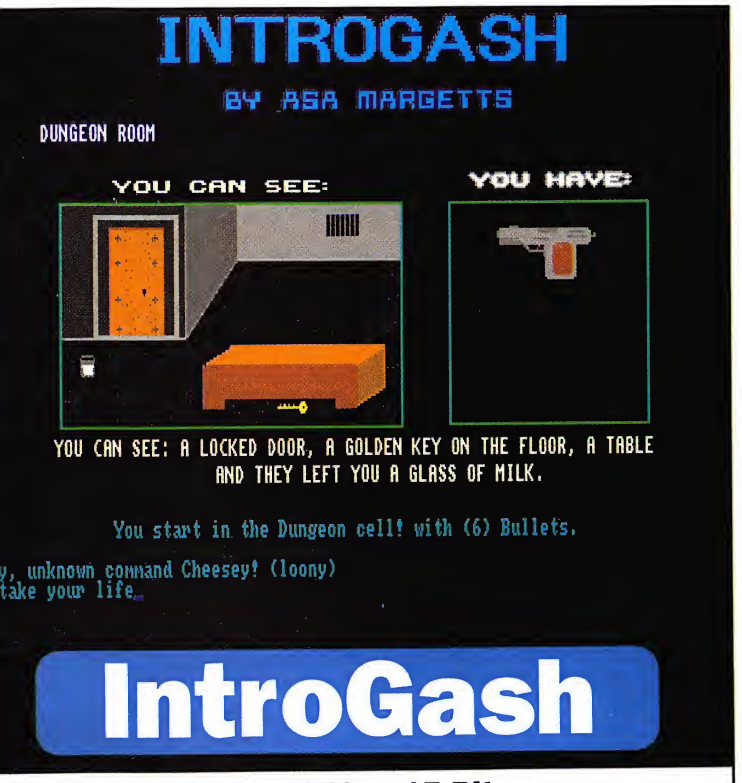


A few years ago vector balls were all the rage.(Oh really? Speak for yourself. ED.) All the demo groups were competing on how many they could cram onto one screen, arguing whether or not they were calculated in real time, really pointless stuff.

This program allows you quickly to design and render standard IFF images of vector ball objects. These can rotate in 3D and can be saved as individual frames and loaded into a paint package such as DPaint and animated.

The interface of this program is completely mouse controlled and looks very professional. It also works very well but is it any use? Well, in my opinion no but if someone wants to create vector balls for a demo then for them, yes!

75%



IntroGash

Disk 3171 17 Bit

hen I first saw this game I thought, hh! what great adventure games ey used to write for the ZX pectrum. There were two distinct pes of adventure games then. arly on they were text only and u just had your imagination to nvert the descriptive text. The st text game was in my opinion he Lords of Time by Level 9 omputing. Remember them? here then followed adventure ames containing graphics which, some ways, were not as exciting.

IntroGash does contain aphics but they are so simple you e hardly drawn into it. It is also almost unbelievably un-user friendly, replying to most inputs with "Sorry, Unknown Command" It sounds just just like a certain well known personal computer operating system.

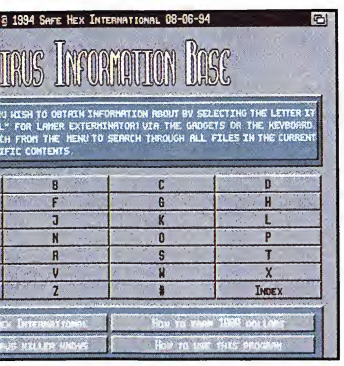
The plot is also flawed. You are supposed to be thrown into a dungeon by the Government for some reason or other but you start your adventure carrying a loaded gun hidden in your shoe.(Recipe for blisters that.) It all sounds rather bizarre to me! But it is nice to see an adventure game instead of a rather samey platform affair.

50%

VIB

Disk U1111 KEW=II

3 stands for Virus Information se. It is a database of all the known uses on the Amiga and is compiled the famous Safe Hex International HI). SHI is a non profit group started 1987 with the Amiga and has ound 600 members. They also ecialise in PC viruses of which there are many more than on the Amiga.



It is a fact that few viruses are written for the Amiga nowadays and perhaps this may be a cause for worry in itself. If not even viruses are being written for a machine, where they are everywhere else is this a sign that the machine is dying? Let's hope not.

This is two a disk set and contains information on over 1800 Amiga and PC viruses. There are even screen shots showing you what certain viruses do to your system. Definitely worth getting if you are worried about getting a virus or even if you are just interested about the subject in general.

90%

Touch & Go

Disk F1-019 F1 Licenceware

Quality always shines through, and this is one of the best Licenceware games I have seen this year. I am sure though I have seen something like this before. There was a cute little French game called Squeek a couple of years ago in which you controlled a cute fluffy creature and had to travel over squares which then changed colour which was in some ways similar.

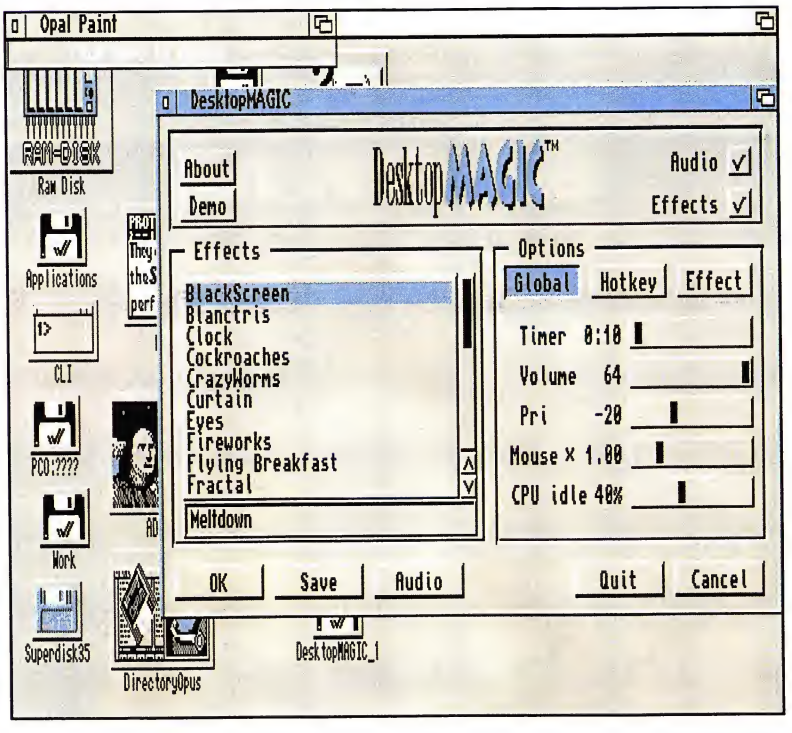
In Touch & Go, you control a small green "grav ball" and the object is to move around the play area and touch all the tiles in the right order. When they are touched they will fall from under you, so you must keep moving otherwise death occurs.

This becomes quite tricky as you have to travel over every tile on the level and that means that you have to go over them in the right order. This game is seriously addictive and well worth the money.

90%

DesktopMAGIC

Disk U1112 KEW=II



DesktopMAGIC is described as a modular screensaver and system sound manager. Every personal computer has a screen saver of some sort. When you think of the MAC's you think of little flying toasters or lighting bolts. When you think of the PC's, you think of jerky little flying Windows symbols (shudder).

Workbench 3.x now has a built in screen saver and while this does the job it is a little boring. This three disk package contains 32 animated screen saver modules accompanied by sampled sound and 8 track music. It also allows you to assign certain sounds to certain events. For example you can have the sound of someone burping every time you hit a key or someone shouting "Thankyou" every time you insert a disk. (If burping or shouting is what turns you on)

The idea in general may be good but it does come at a price. The resident program does take up memory, and so do the sampled sounds. It also takes up 2.4 megs of hard disk space and therefore is not much use on a floppy disk based system.

The effects are quite awesome. These range from the usual Amiga savers you see around like the star scapes and such like to the more unusual ones like crazy worms which quickly munch away at your Workbench screen until there is nothing left. My favourite though is the aquarium, turning your monitor into a tank of multicoloured fish. Glug, glug.

95%

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GAMES

☐ **18th Hole**
(CAT 225 – 2 DISKS – NOT 1200). This is a very good looking overhead golf game. Good multi player fun.

☐ **3D Games Series**
(CAT 849 – 1 DISK). Includes a brilliant 3D adventure game, which is absolutely huge.

☐ **Act of War**
(CAT 267 – 1 DISK). A very good Space Crusade style strategy game with three missions to do, and an array of weapons.

☐ **Advanced Hero Quest**
(CAT 1920 – 1 DISK). Let the computer be the game master, and provide the challenge. You need the board game to play.

☐ **Deluxe Galaga**
(CAT 1974 – 1 DISK). A true classic as far as shoot em up games go, and fantastically professional with it. Re-live some arcade nostalgia now.

☐ **Diplomacy**
(CAT 1909 – 1 DISK). A very competent computer version of that great board game.

☐ **Gnu Chess**
(CAT 2042 – 1 DISK – NOT 500). A very good looking playable chess program. Easily one of the best around.

☐ **Golden Oldies**
(CAT 1308 – 1 DISK). A wonderful collection of arcade classics from the early days. A good nostalgia trip.

GAMES

☐ **Grand Prix 93**
(CAT 2692 – 1 DISK). A surprisingly deep and highly involved management game.

☐ **Gush**
(CAT 1209 – 1 DISK). This is probably the best version of Pipemania you can get. Very playable and very addictive.

☐ **High Octane**
(CAT 680 – 1 DISK). This is a corking overhead car racer for two players. It's full to the brim with thrills and spills, and plenty of weapon pick ups.

☐ **Jellyquest**
(CAT 2336 – 1 DISK). A sort of Q-Bert puzzler, and a good one at that. Quite fiendish.

☐ **Klawz the Cat**
(CAT 1735 – 1 DISK). This is a lovely cute platform game, with classic gameplay.

☐ **LCD Dreams**
(CAT 1789 – 1 DISK). A collection of four old LCD hand held games revamped for the Amiga. Great stuff.

☐ **NO I Mine 1**
(CAT 920 – 1 DISK). A clever Boulderdash game, with mind boggling puzzles.

☐ **NO I Mine 2**
(CAT 454 – 1 DISK). More of the same, with tons and tons of frustrating levels.

☐ **Pop Quiz**
(CAT 2250 – 1 DISK). Test your knowledge of pop history with this pop-tastic quiz.

GAMES

☐ **Red Dwarf Quiz**
(CAT 887 – 1 DISK). Test your knowledge of the TV series with this Dwarf-tastic quiz. It's very tough indeed.

☐ **Road to Hell**
(CAT 565 – 1 DISK). Yet more overhead racing in yet another great game. This time you can customise your car as well.

☐ **Starbase 13**
(CAT 1213 – 2 DISKS). This is an epic graphic adventure with lots to solve. It's very playable, and quite funny.

☐ **Survivor**
(CAT 330 – 1 DISK). This is a pretty good RPG type adventure game. Simple in play, but hard to finish.

☐ **Tetren**
(CAT 66 – 1 DISK). Tetren is a very good Tetris clone. It features a good selection of new oddities, and two-player option.

☐ **Mr Men Olympics**
(CAT 1890 – 2 DISKS). This is a lovely game for kids. It features great graphics which match the original very well.

☐ **Total War**
(CAT 1043 – 1 DISK). A brilliant version of the board game Risk. Six players computer or human compete, and battle.

☐ **Wizard Wars**
(CAT 2959 – 1 DISK). This is a very polished RPG type board game. Quite involved and pretty tough to win.

ASSASSINS

☐ **Assassins 3**
(CAT 104 – 1 DISK). Megaball – great breakout game. Drip-polished Painter game.

☐ **Assassins 123**
(CAT 173 – 1 DISK). Includes the excellent Artillerus 2 which is brilliantly addictive, and for up to eight players.

☐ **Assassins 114**
(CAT 185 – 1 DISK). International Cricket is on here, and so is Insectoids 2. Brill.

☐ **Assassins 95**
(CAT 286 – 1 DISK). Includes two football manager games which are quite different from each other. Very playable.

☐ **Assassins 133**
(CAT 1139 – 1 DISK). There are two great Columns type games for you on this one.

☐ **Assassins 138**
(CAT 1348 – 1 DISK). Includes the unmissable game Scorched Tanks. Totally addictive, and great multi-player fun.

☐ **Assassins 128**
(CAT 1632 – 1 DISK). Three brilliant versions of some arcade classics. Includes: Space Invasion, Deluxe Pacman and Solar System Wars.

☐ **Assassins 139**
(CAT 2282 – 1 DISK). Includes a good fruit machine game, and weird breakout.

☐ **Assassins 135**
(CAT 2442 – 1 DISK). Has a brill Backgammon game.

MUSIC/DEMO

☐ **Fairlight 242**
(CAT 2781 – 1 DISK). Contains a very long video sequence set to the usual techno type music.

☐ **9 Fingers**
(CAT 383 – 2 DISKS). An audio visual feast brought to you from Spaceballs. It's pop-video tastic and no mistake.

☐ **Arte**
(CAT 562 – 1 DISK). A graphical extravaganza of a demo with funky-tronic music.

☐ **Attraction**
(CAT 1243 – 1 DISK). A great music disk with some lovely thoughtful music.

☐ **Banging Raves**
(CAT 213 – 1 DISK). Perhaps not rave exactly, but a good megamix of some classic tunes. A good mix of styles.

☐ **Banging Raves 2**
(CAT 514 – 1 DISK). Another good megamix.

☐ **Basso Continuo**
(CAT 1059 – 1 DISK). Ten excellent funky tunes are on here for your listening pleasure.

☐ **Doop Re-mix**
(CAT 337 – 1 DISK). A good re-mix of that chart topping tune.

☐ **Gastric Ulcer**
(CAT 2724 – 1 DISK). A good collection of some very hard rave tunes. Not for the faint hearted listener.

MUSIC/DEMO

☐ **Gospel Karaoke**
(CAT 10 – 1 DISK). It sounds unbelievable, but it is true. Karaoke Amiga!

☐ **Kaos Theory**
(CAT 1114 – 1 DISK). It's rave-omatic Amiga time with some seriously hard tunes.

☐ **Multi Megamix 2**
(CAT 2498 – 1 DISK). An almost commercial quality re-mix of some very famous tunes.

☐ **Piece of Mind**
(CAT 980 – 1 DISK). A great 3D extravaganza demo with some very classy music.

☐ **Scoopex 2 Unlimited**
(CAT 2241 – 2 DISKS). Good old Scoopex supplies 3 very well produced 2 Unlimied mixes.

☐ **Sequencial**
(CAT 547 – 1 DISK). A roller coester of a demo.

☐ **For Your Mind**
(CAT 2462 – 1 DISK). Fast video, fast music, a really moving experience for sure.

☐ **State of the Art**
(CAT 19 – 1 DISK). An all time classic demo. Brilliant visuals and a cracking dance tune.

☐ **Star Trek Rave**
(CAT 2390 – 1 DISK). Is nothing sacred? Apparently not. A silly story with pictures which provides a good laugh.

☐ **Techno Tracks 2**
(CAT 1664 – 1 DISK). Awesome music and some great visuals make this a must!!

ALL THE DISKS LISTED ON THIS PAGE ARE COMPATIBLE WITH ALL AMIGA COMPUTERS UNLESS OTHERWISE STATED

USEFUL

☐ **600 Business Letters**
(CAT 291 – 1 DISK). Lots of letters for lots of things.

☐ **Account Master**
(CAT 1817 – 1 DISK). A good little accounts program to help keep your books.

☐ **Amibase Pro 2**
(CAT 293 – 1 DISK). Probably the best database program you can get. Very usable indeed.

☐ **Astro 22**
(CAT 2120 – 1 DISK). An excellent program to help with your astrological predictions.

☐ **Astronomy**
(CAT 2847 – 1 DISK). Produces very detailed planetary information for astronomers.

☐ **Classic Utilities**
(CAT 1863 – 1 DISK). A true collection of classics that you really should have.

☐ **Create Adventures**
(CAT 1027 – 1 DISK). A very nice authoring program.

☐ **Crossword Creator**
(CAT 2161 – 1 DISK). Takes the strain out for you.

☐ **Crunchers disk**
(CAT 1227 – 1 DISK). If disk space is getting tight then this disk is definitely for you.

☐ **D-Copy 3.1**
(CAT 2582 – 1 DISK). The best disk copier you can get.

☐ **Dynamic Skies**
(CAT 1512 – 1 DISK). An amazing night sky viewer which is feature packed.

USEFUL

☐ **Easycalc**
(CAT 1042 – 1 DISK). Simply the best spreadsheet.

☐ **Edword Pro 4**
(CAT 2071 – 1 DISK). A brilliant text editor which has a very good feel about it.

☐ **Forecaster**
(CAT 607 – 1 DISK). If you're a betting man/woman, this disk could be up your street.

☐ **Grinder**
(CAT 1249 – 1 DISK). A versatile screen converter.

☐ **Hyperdrive**
(CAT 1116 – 1 DISK – NOT 500). Creates a protected RAM disk.

☐ **Mandelmania**
(CAT 820 – 1 DISK – NOT 500). A very fast fractal generator with fast zoom in and out.

☐ **Mandelplot**
(CAT 90 – 1 DISK). An excellent shareware fractal generator. Tons of fractal types.

☐ **Magnum**
(CAT 2666 – 1 DISK). A good disk magazine creator.

☐ **Opti Comms 2**
(CAT 2375 – 1 DISK). An excellent collection of tools for use with your modem.

☐ **PC Task 2**
(CAT 1281 – 1 DISK). A working demo of this very good PC emulator program.

☐ **Planetarium**
(CAT 1887 – 1 DISK). A simple program to display the position of the planets.

USEFUL

☐ **Pools Tools 2**
(CAT 442 – 1 DISK). A great rich quick program? Could be couldn't it?

☐ **PP Mini Crunch**
(CAT 838 – 1 DISK – NOT 500). A user friendly interface for the excellent Powerpacker. Very nice.

☐ **Professional Utilities**
(CAT 634 – 1 DISK). A very good useful and varied set of worthwhile programs.

☐ **S-I-R-D-S**
(CAT 2214 – 1 DISK). Create your very own stereogram pictures and baffle your friends.

☐ **Start of the Art**
(CAT 2317 – 2 DISKS). These disks are packed chocker with various graphics programs.

☐ **Starview**
(CAT 1610 – 1 DISK). A night sky viewer which even marks out the constellations.

☐ **Text Engine 4**
(CAT 1464 – 1 DISK). The best word processor there is. Very well suited to the Amiga.

☐ **The Money Program**
(CAT 1811 – 1 DISK). An excellent home money monitor program. Very useful.

☐ **Utility Disk Maker**
(CAT 2371 – 1 DISK). Proves very helpful for creating your own disks, serious or not.

☐ **X Beat Pro**
(CAT 415 – 1 DISK). A very friendly music sequencer program. Very good for learners.

ANIMATION

☐ **Animation Studio**
(CAT 2406 – 1 DISK). A fantastic program to get you started in animation. Features the onion skin layering technique.

☐ **Boat**
(CAT 933 – 1 DISK). A very nice animation of a typical English garden scene, with a boat.

☐ **Bond's Last Stand**
(CAT 835 – 1 DISK). Bond cops it at last, and not before time too.

☐ **Beach**
(CAT 1566 – 1 DISK). A great single screen picture postcard type animation.

☐ **Human Cannonball**
(CAT 1599 – 1 DISK). An amusing story of how not to be a human cannonball.

☐ **Linus**
(CAT 1018 – 1 DISK). A very original anim with a very good cartoon atmosphere.

☐ **Raging Hormone**
(CAT 2780 – 1 DISK). Poor old hormone tries to pull a bird. He should know better.

☐ **Raging Hormone 2**
(CAT 2473 – 1 DISK). That thick hormone just doesn't know when to stop. Very funny.

☐ **Raging Hormone 3**
(CAT 2130 – 1 DISK). Hormone passes on what he has learnt to his son. What a shame.

☐ **Savings**
(CAT 112 – 1 DISK). The post office savings advert quite a novel end. Funny.

MISCELLANY

☐ **Communicate**
(CAT 279 – 1 DISK). Learn how to communicate with sign language and many more.

☐ **Octamed Tutor**
(CAT 2456 – 1 DISK). An excellent guide to getting the most from Octamed or MED.

☐ **Spectrum Emulator**
(CAT 1446 – 1 DISK). Turn your Amiga into a 48k ZX Spectrum. A fast-ish Amiga is recommended though.

☐ **Speccy Classics**
(CAT 498 – 1 DISK). A collection of classic old Spectrum games for use with the above emulator program.

☐ **Speccy Classics 2**
(CAT 1499 – 1 DISK). More great games for emulator.

☐ **Speccy Classics 3**
(CAT 2993 – 1 DISK). And yet more corkers.

☐ **The Invisible World**
(CAT 1786 – 1 DISK). A visual insight into the tiny world of microscopic bugs.

☐ **Titanic Cheats**
(CAT 1031 – 1 DISK). Absolutely chock a block full of hints, tips and cheats.

☐ **Ultimate Cheat Disk**
(CAT 2583 – 1 DISK). Another disk packed to the gills with game tips and cheats.

☐ **VIC 20 Emulator**
(CAT 1087 – 1 DISK). Turn your Amiga into a VIC 20. Comes with tons of games. Needs a fast Amiga to fully appreciate.

1200 ONLY

A COLLECTION OF DISKS FOR THE AMIGA 1200 COMPUTER

☐ **Big Time Sensuality**
(CAT 2215 – 2 DISKS). An audio visual treat of a demo with stunning graphics and an almost CD quality soundtrack.

☐ **Friday at Eight**
(CAT 2033 – 1 DISK). A very fast paced demo with a really brilliant music track.

☐ **Full Moon**
(CAT 1740 – 1 DISK). A brilliant demo with a spooky intro and a good pacey tune.

☐ **Klondike Deluxe**
(CAT 782 – 3 DISKS). A patience card game with some very beautiful picture cards.

☐ **Maximum Overdrive**
(CAT 2986 – 2 DISKS). A very long full motion video demo which lasts ages.

☐ **Megaball AGA**
(CAT 842 – 1 DISK). The most popular breakout type game gets even nicer. A must.

☐ **Real**
(CAT 2379 – 1 DISK). Possibly the best AGA demo to date. Totally awesome.

☐ **Relokick 1.4**
(CAT 2918 – 1 DISK). Brings downward compatibility to your new 1200 to help get some of those old programs working.

☐ **Sleepless Night 3**
(CAT 583 – 1 DISK). An essential collection of serious programs guaranteed to work on the Amiga 1200.

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BANDIT MANIA

Mental Image

Even though Mental Image's prequel Winning Post was a pretty good fruit machine, I really think a sequal was uncalled for. It looks to me like a lot of money has gone into this game. You get a 4 page manual, a well printed order form, tempting you to buy other Mental image products. You also get a free magazine introducing you to the creators, and interesting articles such as shareware and software piracy amongst others.

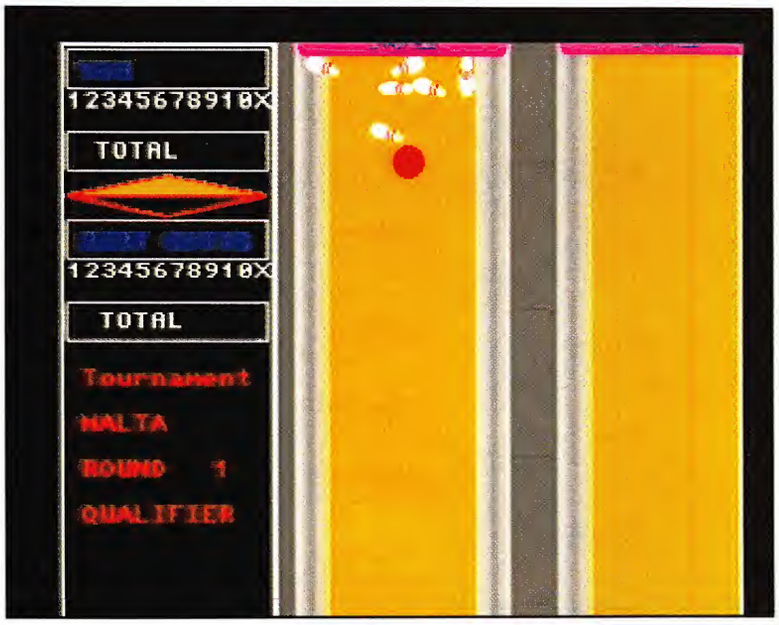
So to the game which is very well programmed and presented. It actually contains 3 fruit machine simulations, and each of those contain many sub games. These sub games occur at certain points though the main game.

Some people may not like this game for the simple fact that it is a fruit machine simulator. One thing you don't need is to play the game, be very good at it, and win a lot of virtual money. I mean that's all you need, virtual money!

But the many sub games and hidden extras make this a very enjoyable game. Bandit Mania costs £6 and is only obtainable from Mental Image.

90%

STRIKE



Bus Stop PD

This game is ideal for people who find all computer games far too difficult to understand and play. It is a bowling alley simulator. All you have to do is press the joystick button to release an arrow which moves right and left across the bowling lane. Then you simply press the button again to release the ball.

You may think there isn't a lot of skill involved in that action but it does take some practice to get the ball in the right place and knock over all the pins.

Unfortunately Strike is a bit too simple and you may soon tire of it, but it is the first Bowling simulator I have seen on the Amiga, and the author is making Strike II which should be an improvement on this one.

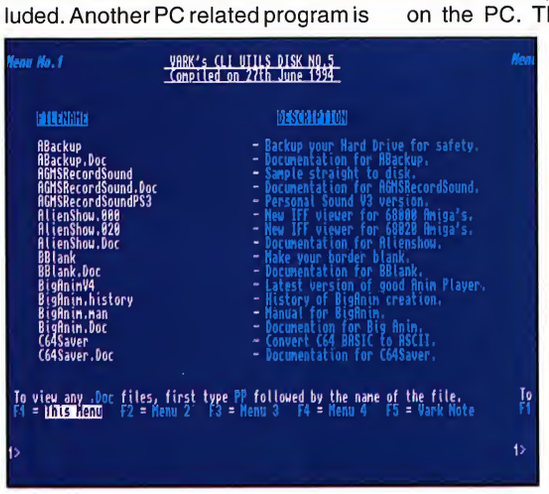
70%

Vark V

Disk UT220 **Roberta Smith**

Vark has managed to squeeze over 30 utilities onto his latest disk. The highlights include: Chopper, which allows you to split and join large files on a PC and transfer them to an Amiga, or visa versa. The MSDOS version is also of course also included. Another PC related program is PCrestore which enables you to use the MSDOS program to backup files on your PC and restore them on your Amiga.

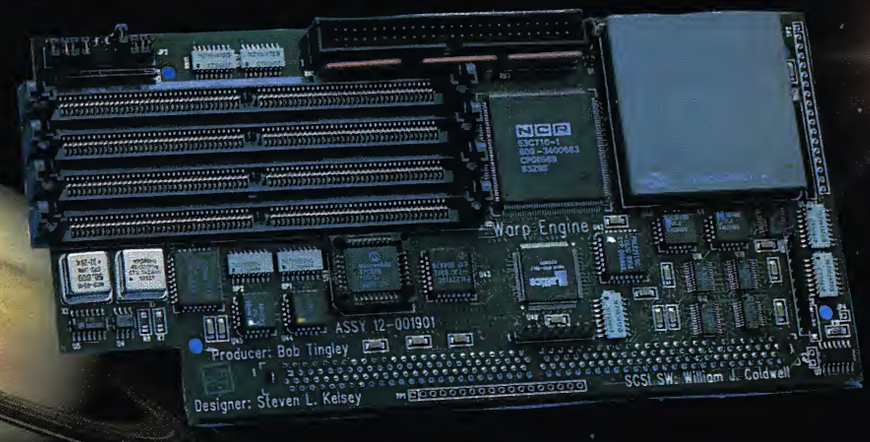
Backup is not MSbackup and I was a little confused because I couldn't find a program called Backup on the PC. The author is currently working on a version that will work with MSbackup so we will have to wait for that.



There are a few utilities here that are rather useless. The first is Drivelight which assigns your drivelight to a device, and the second is program that converts Commodore 64 BASIC to ASCII. Oh well. not everything has to be useful, I suppose.

80%

WARP ENGINE



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Features	WarpEngine	GVP-040/40	X-Calibur	FastLane	4091	DKB3128
28MHz, 33MHz, 40MHz Versions	YES	NO	NO	NO	NO	NO
28MHz Upgradable to 33 or 40MHz	YES	NO	NO	NO	NO	NO
Expandable onboard to 128Megabytes	YES	NO	YES	YES	NO	YES
Built in SCSI-2 Fast Hard Disk Controller	YES	NO	NO	YES	YES	NO
Uses Industry Standard Amiga SIMM Modules	YES	NO[1]	YES[2]	NO[3]	NO	YES
Uses any Combination of SIMMs	YES	NO	NO	NO	NO	YES
Allows use of the Memory from the Amiga	YES	NO	YES	NO	NO	YES
Uses a Zorro III slot	NO	NO	NO	YES	YES	YES
Memory Speed Much Faster than Amiga Ram	YES	YES	YES	NO	NO	NO
Works in Amiga 3000	YES	YES?	NO	NO	NO	Yes
	NO	NO	NO	NO?	YES	?

[1]GVP uses custom memory modules that can cost up to 1.5 times as much as the standard memory [2]The FastLane uses old 8Bit memory modules that must be installed 4 at a time.

[3]Memory board is about 30 to 40% slower than the Ram on the motherboard. [4]The X-Calibur requires you to install 2 SIMMs at a time. [5]GVP accel. Bd.

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Operation Firestorm

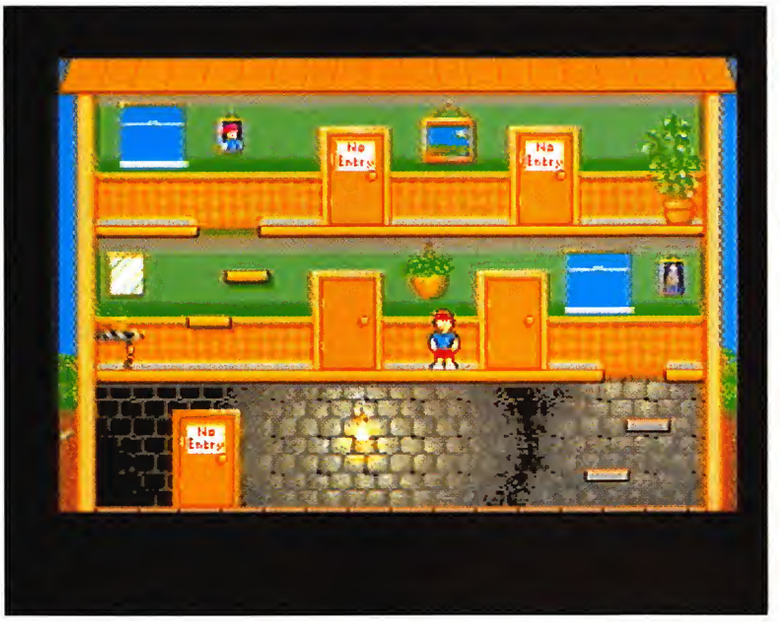
Disk LW26 Amiganuts

Upon loading, the Operation Firestorm titles give the impression that you are about to play Operation Wolf. This is in fact nothing like it but is a mixture of Contra 3 on the Super NES and Midnight Resistance. This means that you run along shooting people.(Ah that's different. isn't it?)

You can also shoot up and down which means you can take out anybody walking on platforms above you.

It is a shareware game and costs £3.50. This may be quite a lot to pay for a very average horizontal beat 'em up. However the gameplay is very smooth and the graphics are excellent.

80%



Henry's House

Disk F1-040 F1 Licenceware

Here is another cute platform game written in AMOS. This time unlike many times before, it is well programmed and everything scrolls smoothly.

You are Henry and you have been told by your mother to collect together all your toys which lie almost everywhere you look, Henry does seem to have a large collection. The graphics in this game are very well drawn, it is just the game play which suffers from a slowness which eventually gets on your nerves.

77%

Contacts for PD reviewed in this issue.

Roberta Smith DTP (PD)
190 Falloden Way
Hampstead Garden Suburb
London NW11 6JE
Tel: 081 455 1626

NBS
U/F6 1 Chain Lane Newport
Isle of Wight
PO 30 5QA
Tel: 0983 529 594

17 Bit Software,
2/8 Market Street
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EX2 9DU
Tel: 0392 493588

Amiganuts
3 Spring Road
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SO19 2BH

Mental Image
16 Mile End Avenue
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Doncaster
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Scribble PD
2 Hillside Cottages
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If you have created a masterpiece and you would like it reviewed here or if you own a Public Domain company and want to contribute new and interesting PD, please don't hesitate to send it in. The address is:

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amiga answers

APPS

Dear *AUI*,
Please, please help! I have an A1200 with 2MB and no hard drive. I am using Wordworth V2, which came in the Desktop Dynamite package with my Amiga. I am having difficulty saving anything with it. I want to save for a spare floppy. When I just tried saving in the usual way, my document saved OK but when I came to re-open it at a later date all I got was a message 'cannot open document'.

I then created a drawer on my save disk and saved in to this. This saved OK too and I could re-open the document, but it had changed. Instead of the fonts I had used and the size I had used they were now all in the default CG Palacio size 12 which meant I had to change everything before I could print it. This caused other problems like sending the text off the top of the page. When saving I have used 'save' and 'save as' - both getting the same result. What is going on?

Also how do you use other fonts in Wordworth? I'd like to use some of the fonts on my Workbench (v.3). In the manual it says that you can use other fonts, but it doesn't describe how. Incidentally, half of my manual is printed upside down and back to front. On the Wordworth disk there are four fonts that I cannot even use called Math Roman serif, Math Roman sans serif and both of these in bold. Why do they put these four fonts on if they are no use to anybody? I hope that you can help me with my problems and save me a lot of time having to print everything off before I shut down my system.

Many thanks and kind regards,
Andy Tilley
Gwent

Dear Andy,
You should be able to save in the normal way. Are you saving the documents as Wordworth documents or ASCII? If you are saving them as ASCII, there is the problem as that will not contain any of the control codes for fonts or page sizes. Also, you could check that you save the page settings as default so that Wordworth won't need changing every time you load it.

I don't use Wordworth, but things like fonts should not be any real problem. The only thing that I can suggest is that the system cannot find the fonts and defaults to CG Palacio.

Where did the fonts you used come from? These must be in the same directory as the CG Palacio font: directory before the system will find them. You use other fonts in exactly the same way as you already have. Remember that CG fonts are scalable and the normal Workbench fonts are just bitmaps and look awful when printed out.

The manual was probably upset in the binding process rather than the printing. Make sure that you have all the pages! I have occasionally had problems with manuals falling apart, so I take them to a print shop and get them wire spiral bound, that makes them much more usable. You could do the same with your manual, after getting the pages correctly positioned! If not contact them and ask for a new manual.

The fonts that are of no use. Well, a lot of people will disagree with you and I'm one of them! The name tells you what the fonts are. They are mathematical symbols! Very useful.

If you still can't get Wordworth to work properly, give Digita a call. I'm sure they'll be most helpful.

Answer Types

APPS	Programs etc]
VIDEO	Video related problems
COMMS	Communications
PROG	Programming
OS	Operating System
PRINT	Printer Problems
COVERDISK	Cover Disk problems
OTHER	For Anything Else

APPS

Dear *AUI*
I was interested to read in *AUI* July 1994 the letter from C.A.M. Aitchison. I have also experienced the problem of the one pixel brush that jumps about 4 pixels either side of where I want it to paint when using DPaint. Sometimes it is possible to select a built in brush without selecting a tool type i.e. Straight line or Fill tool. This often happens after using fonts. The answer is simply left click on a tool type in the toolbox. As for the problem of not having the fonts thought to be on Art1 or Art2. The first paragraph of my manual has a disclaimer that states: The Karafonts mentioned in the manual are not supplied with this version of DELUX PAINT IV AGA. I hope this might help.

The big question is can you help little old me? I have an Amiga A1200 (standard as in the Desktop Dynamite pack) with one external disk drive (Cumana) and a Siemens 18 pin printer (colour).

I have installed some compugraphic fonts onto a disk using intellifont from my extras disk and they work very well with DPaint. However, when I try to use them with Wordworth 2, I can get them to appear in the Amiga list on the typeface requester, but as soon as I try to use one it reverts back to the default typeface. I have called the disk Fonts (clever – aye). I was just 40 when I bought this machine at Christmas but I now look and feel 90 hope you can help. Nice mag – have put you on my shopping list.

Kind regards
Bob Lincon
Norfolk

Dear Bob,
Thanks for the suggestion about DPaint. That might be what is going on, but I've never noticed it, probably because I don't tend to use fonts with DPaint.

Fonts and Wordworth seem to be a bit of a pain. Make sure that Wordworth can use the Amiga form of CG fonts. Believe me, there are several different versions to worry about. Have a look in the Wordworth font directory and see what filetypes are there. For example:

Cavemann.font
Cavemann.otag
With Cavemann.type inside the _Bullet_Outlines directory is an Amiga CG font
Common to the Pagesetter programs are files with the extensions:
Cavemann.dat
Cavemann.lib
Cavemann.metric

The other possibility is that Wordworth is always looking for its fonts in the same place. You may have to reconfigure Wordworth so that it defaults to your fonts disk. Be very careful with your disk name. There is a system assign of FONTS:. Rename your disk to BOBSFONTS and point Wordworth at that instead, you might find that things will start to work then.

COMMS

Dear *AUI*,
I own an as yet unmodified A1200 (using Workbench 3, a printer and an external disk drive) and have of course been waiting for a CD ROM unit. So when it was announced that there was to be no CD add on for the A1200 I went out and got a CD32.

Could you tell me the best way to connect the two together, I would like to be able to use both as one. By this I mean save games from the CD32 using my A1200s disk drives and to copy files from a CD to floppy, etc – in short to integrate both machines into one as much as possible. Also, could you please review the "Communicator" by Eureka as advertised by Computer World in *AUI* July 94 as this looks like it could be what I an looking for or better still present a feature on connecting the CD32 to an Amiga, covering all methods and showing the pros and cons of them all.

Mark Bland
Cleveland

Dear Mark,
*n the same July issue of **AUI**, could I efer you to page 23 of the Amiga CD! Magazine.*

As for saving games, well, this will ot normally be possible, you are at he mercy of the programmers of the ames. In order to set up the transfer ystem you have to modify the CD emory system quite a bit and this ould mess up some games. Transerring files across is no problem at ll.

If we get sent a Eureka Commnicator to review, which we have sked for, we will do so, but from the dvert it looks very much like another ersion of the Add on port.

PRINT

ear *AUI*,
have a problem concerning my rinter and word processors. I have second hand A1200 with the tandard 2MB of memory and a 0MB HD, a Citizen 240C printer, ranswrite and Wordsworth 2 word rocessors. The trouble comes hen I try to print letters (Graphics re OK). The printer came with the itizen print manager, which, like he WPs, are on my HD. I am onvinced that I have this set up orrectly with the correct driver elected, since it only comes with e 240 driver anyway. When trying print with Transwrite after first etting margins, prefs etc and hecking what the document looks ke with the preview button, it ends o printing a line of text and then e last few letters of a word on a he of its own followed by another ll line of text etc. The part words e usually printed in what should e the margin.

With Wordsworth, you have to lect a driver from Workbench evs drawer. There isn't a specific tizen driver with Workbench or ordsworth (which recommends osonQ), so I have tried generic osonQ and even tried copying the on for the Citizen driver from the iginal print manager disk to the evs drawer on my H/D.

The only trouble I could see ith that was the fact that the Citizen iver has a tool icon and the other ons had project icons. Does this atter?

If no margins are set, printing is uch the same as with Transwrite, it with a half inch margin at either de the printing looks perfect cept that it keeps putting paraaphs in the middle of sentences. ometimes after full stops or mmas or sometimes just after a ord. On occasions when it does cide to print properly, it puts extra spaces before words which are in bold, italic or in some way styled differently to the rest of the document.

Is the problem with the printer, computer, WP or me? Which one do I send away for repair and how much is it likely to cost? (Not me I hope!)

Occasionally I can manage to get Transwrite to work correctly and Wordsworth almost correctly, apart for the odd extra spaces between words, simply by just turning everything on and setting it to print. This doesn't happen very often though.

Regardless of whether this letter gets printed or not, could you please reply in the SAE provided as I have an awful lot of back course work urgently waiting to be printed and the problem is driving me up the wall?

Ian Wills
Northumberland

Dear Ian,
I don't think that anything is really wrong, just a combination of settings which are clashing.

First get the driver sorted out. You say that you have managed to use the print manager as a driver, well, stick with it, that should be the best driver. If not, the EpsonQ is also very good. The icons don't matter at all; in fact, icons for printer drivers are a rather new addition! It is quite common to find just the driver, such as EpsonQ without any EpsonQ.info.

What is happening is that your driver, wordprocessor and printer are all expecting different paper sizes and page and line lengths.

As you can print graphics correctly, there is nothing wrong with the driver or with the Amiga. Start out with the printer. If it has any controls, make sure that the page length is correct and that you have not adjusted the line length to anything odd. You also DO NOT want to set up any margins in the printer. In other words keep the printer as dumb as possible.

Next sort out the driver. If you use EpsonQ, you don't have to do anything here. If you use print manager, then set that up with the same values as the printer. Again do not set up any margins.

Next set up preferences. Again it's the page length and margins to watch out for.

What you should now have is a printer system that will print away with the maximum amount of text per page.

Now sort out the wordprocessor, set up the page length, this should be the maximum. Then set the top, bottom, left and right margins as required. Don't worry about the page length as the wordprocessor should sort things out for you.

That should be all there is to it. I'm a little puzzled by the extra spaces that sounds more like a driver incompatibility than anything else, but it might be a side effect of the main settings. I'm afraid that you will have to have do a little more experimentation to find the cause of that (if it still happens after you get things set up).

A point to watch out for is that most printers have a perforation skip mode. This can interact with the wordprocessor in a bad way, so make sure that you turn the perf. skip off.

PRINT

Dear *AUI*
PRINTER ESCAPE SEQUENCES
Please can you tell me the correct syntax for the printer escape sequence Extended Command - the last command given in Appendix B of the Workbench2. 0 manual, which allows direct printer control using printer specific commands. I have an A500+ with an A570 CD ROM, second floppy drive, 2Mb RAM, ROM switch with KickStart 1.3 and 2.0 and a Citizen Swift 200 colour printer.

I have several word processor programs and use printer escape sequences with Transwrite and Scribble. I use the AmigaDOS EpsonQ printer driver with both programs. I can make all the other escape sequences work, e.g. condensed print, enlarged print, sub-script, super-script, and ink colour, but I need the Extended Command to change the font. I have tried lots of combinations of ESC[x"ESCkn and I even have tried ESC[x"ESCESCknESC, where x is 3, 4, 5, or 6 and n is the correct number for the font I require. I have also tried the Extended Command with other printer commands which I know work with my printer , e.g. ESC4 for italic print, but these do not work with the extended command either.

Daniel Widdows
Leeds

Dear Daniel
This had me going for quite some time, I could not get the extended commands working, but there is another command that is better suited. This is the RAW command. The format of it is ESC[n"r<xxxx>

So to put your printer into script (well, my Epson anyway) the command is ESC[3"rESCk4

Now the problem is that the 4 is WRONG it is not the character 4 but the number 4, which in ASCII is control D !!

I'm not sure about the Citizen, but the Epson has to be in NLQ mode for font selection to work.

OTHER

Dear *AUI*,
Having read and enjoyed yo magazine over the years, I was a concerned when I read this month (June) Amiga Answers page to fi nine letters regarding readers d covering problems with the coverdisks. I appreciate you have resolve the predicament with t APR.Library... But NINE times?' am sure that you have other Ami owners with problems (or is yo letter bag that empty?) still I wou be grateful if you could answer th little question.

I own an A4000/030 6Mb RA and 50Mhz FPU. My problem com after owning a A1200 with a 50MH 030. I upgraded to the big bo machine so I could fit an Internal C ROM and connect a SCSI tape driv This is where my question begin Is it possible the remove th 68EC030 and install a 50Mhz 6803 I understand that I would have t change the clock crystal, but recollect reading somewhere th added speed would conflict wit the bus speed.

I was wondering if you wer going to review the Emplant boar with the 486 emulation, as this woul probably be my next BIG purchas

Robert Cla
Scotlan

Dear Robert,
*On the face of things it would seem th the Amiga Answers space devoted the ARP problem was excessiv However, it is the policy of **AUI** th every reader deserves help and th policy will not change unless the Edit makes such a decision. To make it a foolproof as possible, we rep whenever possible individuall because if it can be got wron somebody will.*

In some cases where the lette are nearly identical I will edit them little, but remember I can answer th readers in a variety of ways dependir on their ability. In your case I cou probably say 'Shove the ARP.Libra into your LIBS: directory and all will b well'. Other readers will not understar that.

The postbag varies, generally th space devoted to Amiga Answers dictated by readers. If I have a hea postbag then we try to give more spac to Amiga Answers. I have just prepare the Answers for the next issue and this time I have plenty of letters to de with, and I will try to see that no o gets left out.

I've not actually seen the innar of an A4000/30 yet, so I don't know the 030 is surface mounted or sockete If it is in a socket, then you cou

change it. However, you are correct on the aspect on the clock speed. It is not so much the bus speed that is the problem, it is the fact that so many different timing signals are derived from the main system clocks that all sorts of things will go awry.

The 486 Emplant is still Vaporware. It has been rumoured for so long that I'm beginning to believe that it will never be produced. All I can say about it is wait and hope. We've been promised one within the next two weeks and are itching to review it, but two weeks in the computing industry can be a very long time indeed.

OTHER

Dear *AUI*,

I recently replaced my A600 with a second hand A1200 which included a 120MB hard drive. When I booted up the machine for the first time, I was surprised to find that the hard drive was about 80% full with various games and utilities.

I have two questions regarding these programs. Firstly, when I try to print to my Star LC200 printer using PenPal V1.4 and Star 9 Plus driver, if I select GFX and Amiga fonts from the prefs, about 95% of the blank page is fed through the printer before any printing takes place. Is this normal and if not what can I do to stop it?

My second problem refers to backing up the software which is on the hard drive. Quarterback V5.1 was already on the hard drive and it seems to be working OK. However, because I do not have the program on floppy, even if I backed up the entire drives contents, including Quarterback I would not be able to use the backed up material in the event of a hard drive failure, because none of the back ups are bootable and nor are they DOS disks. In other words, is it possible to get working copies on floppy from a hard disk?

J.Rowe
Beckenham

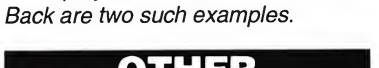
Dear J.Rowe

Your printer should not feed that much paper. I expect that it is the driver. Contact your Star dealer; they should have a set of driver disks for the Star range that may help. The LC200 driver is the obvious one that you need.

I'm going to be a little hard on you now. Generally it is possible to get working copies onto floppy, if you know what you are doing. However, as you do not have the original disks and manuals for the software, technically you are using pirated software. The previous owner should have wiped the hard disk before selling the system to you.

I have to say, BUY a copy of a good backup system. Quarterback or Ami-Back are two such examples.

OTHER



Dear *AUI*,

Can you help me? I currently have an Amiga A500, which I upgraded to A500+ and a second floppy drive. I am running Workbench 2 with (according to 'About'), 3.175 Kickstart, 1MB (with KCS PC trapdoor expansion). I have two other external devices, a HD8+ 40MB HD with 8MB RAM and an A570 CD.

Now here is the problem.

Obviously, these both connect via the side expansion port separately. However I would like to have BOTH devices connected and available at the same time. I would like to be able to copy data directly from the CD onto my HD - is this possible? I am very keen to do this if I can, so even a messy answer to the problem is acceptable. I work with PCs (sorry for that word) and have done minor repair on them, so I have no worries about taking the Amiga/CD/HD apart if required.

A final question is: would it be possible to install WB3 on my HD, or rather, will it work if I do? Will I need to do any further upgrades beforehand? I would be very grateful if you do have an answer for the CD/HD problem, as it is annoying having to swap units every time.

Bryan C Steele
Slough

Dear Bryan,

Well, I can understand your problem, but I don't think that there is much hope of getting everything working at the same time. I do not know of a specific product that will enable you to connect the two units together. Some devices extended the expansion port, and allowed a daisy chain effect. However, the load on the CPU bus would be quite high and the electronics needed to boost the signals add quite a bit to the cost of expansion devices, so they do not tend to have through ports.

There are two small possibilities that you might like to investigate. Some years ago Datel produced a side port expansion module for their Action Replay Cartridge, to allow a hard drive and their cartridge to be plugged into the A500 at the same time. If it carries all the necessary bus signals, then you might be able to do something with this.

The other possible answer is slightly more practical. The A570 has a SCSI connector inside. It might be possible to build a system with a hard drive mounted internally with the 570. You would not have the ability to connect any extra RAM, but at least the two drives would work. I must say that I do not know of anyone who has done this but no-one can say it can't be done.

*WB3 should install and work. However, unless you really have a need for it, there is not much advantage in a non AGA machine. I have seen a few postings on the networks that some upgrade kits are becoming available. Page 9 of September **AUI** carried an item regarding the OS 3.1 upgrade offer from Blittersoft. Tel: 0908 220196.*

OTHER

Dear *AUI*,

I have been and am still an avid reader of Amiga Shopper, but I was advised to buy your magazine as a lot of its contents are devoted to CDs. I congratulate you on your efforts.

I have a 4000/030 with 80 MB hard disk, which I bought in the first week they were on sale. I have fitted a GVP A4008 SCSI II controller for use with a Toshiba XM41 01 B CD-ROM drive. I also have two external floppy drives which are surplus to my CDTV, now redundant as a computer, but incorporated into my Hi-Fi stack.

My queries are:

1 How can I make your *AUI* cover CD 3 boot in my internal CD0:?

2 Under Workbench 3.0, is it possible to include CD0: as a bootable option at start up?

3 Why did you choose to use CanDo as your tool for the CD-ROM program? Why not AmigaGuide?

4 Why do I see a request for CDH0:Brilliance/Brilliance after clicking on the "demo_boot,16,old" Is it because someone used Brilliance as an authoring tool?

5 What are CDTV 21 to 24 and CDROM 54 and CDROM 60?

6 Am I correct in thinking that I could reconstruct your CDTV presentation by using SCALA? I use Directory Opus to look at all the files on your disk.

If you think that I have been verbose, please feel free to edit this letter.

Thanking you in advance for your reply,

Yours faithfully,
T.H.Connell
Whitstable

Dear T.H.Connell,

The Amiga CD! No3 is designed to boot in the A570, CD32 and CDTV; it is not designed to boot in anything else. However, if your driver software allows your CD0: device to be a bootable then all should be well. However, your normal hard drive will be the default boot device. Do a warm boot and hol down both mouse buttons. A scree will appear, select the boot options an see if CD0: is listed. If so, select it an the boot. If not, read the manual an hope!

Once a machine has booted, that' it. You can only select the bootabl device from the screen I have describe above. WB3 has nothing to do wit booting at all. Remember WB3 has t be booted from disk, OK there is a lo of code in the ROM, but it still needs th disk.

CanDo is much more powerful tha AmigaGuide. CanDo allows fu programmer control. AmigaGuide onl gives you a hypertext interface.

Yes. Quite a few tools are used i Amiga CD! production. You get th requester because the assigns hav not been made in your system. Yo could partly reconstruct things wit Scala, but it is only one of many too used.

PLEASE tell me where you fin these files. I do not relish the prospec of searching a whole CD disk to fin them! I did find CDROM 54.deck so expect they are CanDo deck files.

OTHER

Dear *AUI*,

Hello, it's me again! I sent you a fe questions that you answered in th February 93 issue and haven' missed one since. I have no upgraded to Kickstart/Workbenc 2.04 and yes, it is brilliant. I hav recently purchased a CD32.

Not being contented with waitin for the Microbotics sx-1 or whateve it will be called when and if it finall turns up, I decided to try my A200 keyboard using a keyboard adapto from a PC keyboard. Well, what d you know it works!

Action can supply the adapto (at a rather inflated price), but if yo work with PCs, you might very we have one like mine lying around tha you can have for free. It should b possible to purchase one cheape or even make your own, although is pretty pointless having th keyboard without any form of dis drive attached, it does help witl some of the growing number o public domain compilation CDs tha require keyboard input before o during games.

I have also sent this informatio to Amiga Format, but, with hindsigh I thought it would have been bette to send it to you as your mag has th Amiga CD! disk and supplement.

Right, now I would like som information from your good selves I have an A2000HD with an A262 accelerator Kickstart/Workbenc 2.04 with ECS and four Meg of RA

and a 100 Meg Quantum hard disk.

1. I would like to plug my old 42 Meg Quantum into the SCSI at the back of the A2059. How do I get an external casing and power supply?

2. I use Imagine and have followed your articles with interest. I would like to print the full colour (24bit) graphics that I produce from Imagine as close to the rendered image as possible under a limited budget.

I was thinking of purchasing a Star SJ-144 colour thermal printer for £344.99 which is about my cash flow limit. In the Action catalogue, there is a Windows driver that supports 1.6 million colours in any shade. Is there one available for the Amiga (I do not think there is).

What software would I need to send this to the printer. At work I use Photoshop (Mac) and Photostyler (Windows). These both have printer colour correction facilities etc and produce poor quality printouts on our aging HP PaintjetXL. I would like to do better from home, but with my limited resources, it is probably impossible. If you could help on this matter, it would be greatly appreciated.

Ricki Burrows
Weston-Super-Mare

Dear Ricki,
Nice to hear from you again and I'm glad that you find the upgrade worthwhile.

Interesting about the keyboard adaptor. The small plastic plug convertor does not work. I'll have to try the cable at some point.

Several companies sell cases and power supplies. What I did was use a small PC mini tower to house my external drives. Pick up a copy of Electronics and Wireless World or some other electronics mag and you will find quite a few adverts for PC cases of all sorts of sizes. Costs vary from £30 to £90.

The best printer driver that I know of is the Studio Printer Software by Wolf Faust. This supports many different printers including the Star range. It also has many colour correction facilities. Studio can handle 16.7 million colours, (24 bitplanes). In the version that I use, mention of the Star SJ48 is made, so if the 144 uses the same command set, then Studio should drive it with no problem.

*You might be interested to know that Epson has just released a cheap colour inkjet, which we will be reviewing as soon as the driver is available for the Amiga in a few weeks. The quality looks superb and at a very tempting price. Look out for a full review soon and see page 9 in the September **AUI** Newsfile.*

OTHER

Dear *AUI*,
Thanks for your patient replies to the many with problems on Superdisk 32. Myself included.

Not only that, but using the advice in your reply to John W. Hateley (July 94), I was at long last – after 18 months at least – able to make my PD 'Crossword Compiler' disk work from HD. Fantastic!

Now my problem. Full of enthusiasm from your review of Deltrax PD's Spectrum emulator, I bought a copy only to find I cannot get the instructions to read. 'unable to load ppmore' – and this despite your good advice. I must be thick. Can you help?

Also I'm not sure what a sound sampler is – or how to use one. I would be most grateful and perhaps other readers for an article which explained all step by step on how to use the Spectrum emulator.

John N Whittaker
Eastbourne

Dear John,
I pleased that you found the replies useful. That's one reason why we print all letters, despite the odd moan and groan some readers insist on.

You are not in the slightest bit thick; it's that blasted PowerPacker utility again! I had better explain this. There are a series of utilities known as Powerpacker. These compress programs on the fly and providing that you have all the utilities installed and working you should not notice that anything odd was going on.

This is all well and good for someone who has a reasonable knowledge of the Amiga, but for beginners, Powerpacker is a heap of trouble. Unfortunately for beginners, it also makes the most of limited resources, so your standard floppy could hold 1.5 megs of powerpacked data rather than the standard 880K.

The text files have been saved in a powerpacked format. What you need is the program ppmore; this is a version of more that understands powerpacked programs. Use it in the same way as more and you will find that the text is readable.

The other option is to get hold of the powerpacker archive and use that to de-powerpack the file permanently, but that is rather more complicated.

As for the step by step on the Spectrum Emulator - well, that's up to the Editor.

Sound samplers, these are very easy to understand. In the most basic form, they allow you to connect a microphone into the Amiga and use the Amiga as a kind of tape recorder. In order to do this the sounds must be converted into a format that a computer can understand.

Computers do not like sounds directly, so a process known as digitizing is used. This converts an analogue signal (a sound wave) into a stream of numbers. If you then use a device to convert the numbers back into sound, you can reproduce the original sound. The proviso is that you have to sample the input sound quickly enough to be able to reproduce the sound again. The speed of samples is actually twice the maximum frequency that you want to reproduce. In practice, a limit of 2.2 times is used to allow for any shortcomings in the electronics.

The playback is not a problem, the Amiga already has the hardware to do this. A sound digitiser or sampler usually plugs into the Amiga's parallel port. Some are cards that plug internally into a big box Amiga. You feed your signal into the unit and it will save it as numbers in a file. You can then edit this or do whatever you like with it.

Toolbox

Welcome to Amiga Toolbox, an informal, and quite possibly irregular series on various utilities that are available for the Amiga.

These utilities are very much a personal choice, and are programs that I find good uses for. I will include all sorts of programs in this Toolbox series, some you will have come across before, others will be new to you, some will be quite advanced while others will be useful to beginners. In any case you will find the program on the coverdisk and I hope that they will find their way into your own 'toolbox' as they have into mine.

SnoopDos

Author: Eddy Carroll

There are many utilities used for tracking what the system is doing, Snoopdos is one of the best. SnoopDos comes into its own when you are installing other programs that for some reason fail to work. It is often the case that a program is trying to open a file called programName:setup, now if you had installed the program on hard disk, this would indicate that you need to set up an ASSIGN for the program to be able to find its files. *(Put it like this, without SnoopDos, compiling the Superdisk would be impossible. ED)*

Operation

SnoopDos is a CLI driven program, so you will need to open up a CLI window. There are quite a few command line options that you can make use of. However, the default options are so well chosen that they will be all that is required for 90% of use.

The documentation files explain what each option does and what the display means, so there is little point in repeating it here. SnoopDos will not do any damage and the best way to find out about Snoopdos is to us it.

Open up a shell window and make sure that Snoopdos is in the current directory path. Type SnoopDos and that's all there is to it. To see SnoopDos do something, load another program and you will see all the things the Amiga has to do in order to get things running.

A typical output would look like:

Type CTRL-E/CTRL-D to enable/disable snooping. Type CTRL-C to exit.

Process name	Func	Filename Mode Res.
ToolsDaemon	CD	Spock:programs/protext
ToolsDaemon	CD	Spock:programs/protext
ToolsDaemon	Open	protext.info OLD Okay
ToolsDaemon	CD	Spock:programs/protext
ToolsDaemon	CD	Primary:WBStartup
protext	CD	Spock:programs/protext
protext	Open	con:10/10/320/80/protext/auto/close/wait
NEW Okay		
protext	Open *	OLD Okay
protext	Open	protext.info OLD Okay
protext	Open	protext.info OLD Okay
protext	Open	PROTEXT:PROTEXT.cfg OLD Okay
protext	Open	protext.info OLD Okay

This is when I loaded the Protext wordprocessor, as you can see I loaded it from a Utility menu called ToolsDaemon, which in turn performed several CD's and file opens. More importantly, SnoopDos shows WHERE the programs were looking for the files, in this case on my hard disk partition called Spock:.

*These devices are not limited to music and voice, the AmigaSat package that I reviewed (**AUI** Dec 93) uses a form of sampler to decode the weather satellite pictures from orbiting satellites. for more information, read the article on digitisers in August **AUI**.*

OTHER

Dear *AUI*,
I see that I owe you an apology, due to the fact that I had said there had been no review of Interplay, when in fact there had – I missed it simply because I missed the whole issue (something very rare for me).

As to your offer of help, I would be very grateful if you could answer a few queries for me, as I have been unable to find anyone who has the information.

A) Where can I purchase a 'Touch Screen Monitor' + software – I know that Microvitec makes a monitor, but each time I call them they tell me that the person I need to speak to is out. This has gone on for weeks. I have also contacted the ACE centre in Wales, who asked me if I could 'call back', should I find out who stocks them as they are getting a lot of calls asking about Multimedia (Isn't this the whole idea of ACE, so that Amiga users can contact them for information on product(s)?)

B) How can you transfer data, such as a full MM package from Mediapoint onto CD? Even more importantly – WHO DOES IT AND AT WHAT COST? Again these are questions that basic home users such as myself can't get any answers too, because there is no one to ask !

It would be very cost effective to produce MM software on CD and install them in museums etc, but Commodore ask if you are a developer and want money from you. This is fine for large production runs of CDs, but if you are just producing one offs then the effort just isn't worth it. What I thought of doing was to get a CD pressed that would run from an Amiga A4000 and install the systems that way, but I just can't find any information regarding Who - What - Where - How much?

It would be a very big help to me if you could pass on a few contact numbers to me. This is something that I have been waiting for in the current MultiMedia issues of *AUI*, but alas nothing. If you are going to explain to people just what an Amiga can do, then names and numbers are a vital issue, even if only one or two readers may be interested enough to pursue the ideas shown in *AUI*.

At the present time three very large firms have contacted me with regard to MM systems. I have produced demos for all three and the software side of things is no real problem. My only problem for the last two months has been finding a touch screen for the Amiga.

One final point regarding my 'flicker fixer' query from last month. A friend informs me that a French company is about to release both a scan doubler and a de-interlacer for the A4000 at a nice low price. I think that the company is called Arcos, but I could be wrong. Any help that you could give to me would be very much appreciated.

Steve Bennett
West Midlands

Dear Steve,
I have not seen any touch screens for the Amiga, but as you say there are one or two, so I suggest that you keep trying. Remember that most manufacturers will not know anything at all about the Amiga, so don't mention it. Just start by asking for info on various touch screens. You might try calling Think Ltd (021 384 4168), they are probably the most expert of any Amiga devlopers in the touch screen field.

Scala too have used touch screen systems (Tel: 0920 444 230).

The other options are to build a surround with some membrane keyboards in it. Many of the professional trade catalogues stock such things. I think this is a better option than getting the screen all dirty with various paw prints.

I really think that you should register as a developer with CBM, you will find it worth while. In order to cut a CD you have to have quite a good set up. This means an A3000 with a 600MB + hard drive. You would then need to set out the CD in the most effective manner taking into account where the files are stored (this makes vast differences to the access times) and so on. You would then make a tape of this and take it to a cutting machine to make the gold disk master.

Not very convenient, but it does work. If you were a developer you would have got quite a lot of help from Commodore who provide facilities for cutting discs.

Other providers of similar services are Almathera (Tel: 081 687 0040) and Multimedia Machine based in Bolton (Tel: 0204 370280).

You will have found a reference or two from the CD coverdisks. I can add one other Try B.S.A. 081-473-6298 they develop CD32 titles and may be able to help/offer some advice.

Arcos have created a number of Amiga video products, they are probably contactable through HiQ Ltd (081 909 3885) who have acted as distributors in this country for them. Keep an eye on the news pages and if we come across new Arcos products that is where it would be printed.

OTHER

Dear *AUI*,
I bought *AUI* Amiga CD! Magazine for the first time in July. I have an A500+ with an A570 CD ROM, second floppy drive, 2MB RAM, ROM switch with Kickstart 1.3 and 2.0 and a Citizen Swift 200 colour printer. I had been waiting for someone to publish an Amiga CD mag for about three months. However, I refrained from buying the first two issues because it was plain that the CDs were not CDTV/A570 compatible. Thank you for the new compatibility this month.

Not having bought *AUI* before, I was eager to see what was on SuperDisk 39, as well as the CD. Taking a careful look through the mag before plunging in, I read all the replies to letters from readers who had experienced difficulties with previous coverdisks. I also found SuperDisks 34 and 36 in the CD TechyCorner drawer and wanted to avoid any problems dearchiving the programs on these disks. Here is my solution, which I hope will help some of your other readers.

The dearchiver, GuiArc on Superdisk 39 (July issue) worked like a dream. Thank you, Patrick van Beem from the Netherlands. So I used this to dearchive the programs on Superdisks 34 and 36. I have assumed you have an external floppy drive. If you do not have a CD ROM, first make a copy of Superdisk 39, Doubleclick on the copy of Superdisk and use the Workbench Window menu to show all files, Singleclick the Programs drawer and delete it using the Workbench Icon menu. Close the window and place one of the older Superdisks in the second drive, double click the disk icon and show all files as before.

Next drag the Programs drawer over the Superdisk 39 icon to copy the drawer onto this disk. You now have the programs from the old coverdisk on the Superdisk with GuiArc. You should rename this disk so you do not get it mixed up with number 39. Follow the instructions for using GuiArc in the July mag and Hey presto!, painless file transfer at your fingertips.

If you receive the Disk Full message while copying the Programs drawer, click the Remove Object button when asked and do the following: double click your copy of Superdisk 39 and choose New Drawer from the Workbench Window menu. When asked, rename this drawer Programs. Next, doubleclick your older coverdisk icon, select Show All Files and double click the Programs drawer. Drag the programs you want to dearchive into the new Programs drawer on your copy of Superdisk 39. Stop when the disk is full,

PS. If you have a CD ROM, run GuiArc from SuperDisk 39, click Drives on the left hand side of the screen, click on *AUI* CoverDisk 3 in the window, scroll down to the CD TechyCorner drawer, doubleclick on the drawer name, again on the Superdisk name and again on the word Programs.

Now you can dearchive these to the disk you choose in the right hand window. Thank you *AUI* for making these available. I look forward to numbers 38 and 40 on a future CD.

Daniel Widdows
Leeds

Dear Daniel,
Thanks for the tips I'm sure that other readers will be interested in them.

OTHER

Dear *AUI*,
In May's *AUI* David Taylor did an article about the Epson GT6500 scanner and mentioned attaching it to an Amiga A1200.

Well, I've tried exactly this. The sad tale began in late November when I got the GT6500.

It worked on my A1200 for about 2 weeks then mysteriously stopped doing so.

Wang changed the board and it worked again for 3 days then mysteriously refused to continue to do so when I was about to demo it to a friend.

Another call to Wang and three more board changes later – still no go.

It has now also ceased to function on another friend's A1200, on which it had worked for 3 months without a problem.

SAD? Yes and even more so when I bought a brand new A1200. Same result – no go. I then tried it on another friend's A1200 – NO GO. Oh yes, I forgot to mention the GT6500 works perfectly on yet another friend's A3000. His GT6500 was tried with my GT6500s parallel interface board – worked fine.

I've tried ADPro 2 and a loaned copy of ImageFX 1.5 using the genuine ASDG lead for these attempts. The machine was reformatted and loaded with only Workbench and ADPro in each case.

We've had 4 brains with about 5 years experience each and my own

ARENA

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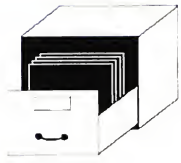

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lesser abilities, on this problem and left no stone unturned. A case of a fundamentally flaky CIA chip design on the A1200? Dunno. We've just plain run out of ideas after 4 months trying. I hope the floptical I'm now fitting will work soon, but even this on an A1230-II and A1291 seems reluctant to function. (Why Me?)

Bruce Parks
Wolverhampton

Dear Bruce,
I can sympathize with you. I have the GT8000 and I would be very very upset if that failed!. I wish that you had told me what actually happens, it might have helped. I cannot say exactly what the problem is, but I can make the following suggestions.

Leads are number one on my hit list. The point is that you must have MOVED them during your testing. It is possible that there is a dodgy connection in one of the plugs, have a look at the connections and check for dry joints etc.

Some years ago a friend was having problems with his 1541 C64 disk drive. Sometimes it would work sometimes not. This was really baffling, until I realised that it worked when you had the drive in an easy position for testing, put it back in the home made workstation and things went wrong. The reason: the interface lead was right near the monitor and was picking up interference. Check the lead routes and move them about a bit and see if anything starts to work.

The CIAs are fairly robust devices now, as they are surface mounted and can't easily be changed. The A2000/ 500 CIAs are not as robust and I have blown several of them with various I/O projects.

There could be some micro fuses in line that might be the problem. I expect that you have a printer. How are you switching between the printer and the scanner? If you are using a good quality switch box, then fine, but if you are physically unplugging the leads and swapping things about, you could be blowing things up if you do this with the Amiga powered on.

OTHER

Dear *AUI*,
Having a been a reader of *AUI* for over six years I thought it was about time I attempted to make use of the Amiga Answers section. As requested, here is a quick list of the key components that make up my system.

A500+ with 2 Meg chip RAM,

Microbotics VXL-30 accelerator REV 2.0 25mhz 68EC030 + 25mhz 68881 (in 68000 socket),

Microbotics VXL RAM-32 RAM card REV.4.0 2meg(16-HY534256S 256kbit-by-4 60ns Fast Page Mode DRAMs) (plugged into the above),

A590 with 2 Meg fast RAM internal 46 Meg SCSI HD, external 150 Meg SCSI HD and external 60 Meg SCSI tape drive.

As you can see there is plenty of room for improvement. What I would like to do is, in this order, upgrade the 32 bit RAM to 8 Meg, add a 40mhz 68EC030, swap the A590 for an A570 and utilize the A570's internal SCSI connector for my external SCSI devices. Having an A570 was a bit of an after thought really, so could you just clarify what the A570's internal SCSI connector can and cannot be used for and how closely it compares to the A590 as a SCSI controller?

According to the manual the VXL RAM-32 RAM card can be upgraded from 2 to 8 Meg by removing the old RAM chips and installing "sixteen 1 mbit-by-4 80ns Fast Page Mode DRAMs (DIPs)" Do you know who might stock these chips and what the price per Meg could be?

According to the manual the accelerator can be upgraded to a faster CPU by installing:

1. "A faster CPU,,

2. "A faster CPU clock"

3. "Faster PAL chips bearing numbers matching the positions 3,9,11

The numbers on the PAL chips in question are 03-202-U28, 09-202-U20, 1 1-203-U23.

When I purchased the boards, I found two small packets of ICs in the boxes, but could find no info about them in the manuals nor could I get any info about them from the person who sold me the boards. I even phoned the Microbotics technical support line (Texas USA), but they just sent me a spec-sheet.

The ICs in the packets match the numbers of ALL the PAL chips on the accelerator with the exception of 3,9, 11. These are numbered 03-402-U28, 09-402-U20, 11-403-U23, do you think I might already have the faster PAL chips with the "4" referring to 40mhz instead of "2" for 25mhz? Maybe a previous owner had already bought the PAL chip upgrade, but never got round to buying the faster CPU.

I would be very grateful if you could help with any of these matters.

Dave Simons.
Manchester

Dear Dave,
The internal SCSI connector of the 570 is SCSI and as such should work with SCSI devices. However, I don't know of anyone who has tried to make use of this.

Memory chips, just pick up any electronics magazine and you will find lots of suppliers. However, you had better sort out an exact type number before you call! Big suppliers such as Farnell Components would have them, but do look in the adverts. RAM prices vary day to day and not many companies list prices, but I would expect the price to be about £200 per 4 Megs - note that you may only be able to expand directly to 8 Megs depending on the facilities on the board.

Are you sure the spec sheet did not give you the differences between the PAL chips? I suspect that you are correct, but without seeing the spec sheets, I cannot be sure.

OTHER

Dear *AUI*,
I previously bought your magazine on an occasional basis, but have purchased your last few issues, since the one that had Superbase Personal 2 on the cover. I've had that program for a number of years, using it extensively and at long last I don't have to endanger my joystick port messing around with that dratted dongle. Thank you.

However I an continually disappointed by the content of your letters pages which for at least three issues have featured little more than problems with your incredibly inefficient coverdisk archiving. The June issue of Answers had nine such letters all with virtually the same reply. May had four and this month had six. There is undoubtedly a problem with the dearchiving which you now appear to have resolved with GUI, but did we have to be bored to the teeth with the same explanation over and over again? Wouldn't one reply or a one page tutorial have been enough!

Having got that off my chest, I want a moan about your cover CD. I do have a Comet store near me, but I have not found them "ever charming and efficient". Your first CD was "demonstrated" to me on a green monochrome monitor, hardly the best way to display high resolution graphics is it? I was also told that before the disk was loaded that I was wasting my time "it's not a winner" and then I, who'd never seen a CD32 before, had to show him how to work it! Rumbelows were however very helpful. I still have the first CD and the third, but WON'T be going to Comet to exchange them, but would like the SuperDisks if you would care to forward them in compensation for my next gripe.

This month's floppy which dearchived without problem, contained a screen blanker. After hunting around for Installer which the docs didn't mention we'd need I got it onto my hard drive and rebooted. Read a bit of the mag waiting for the blanker to go to work and then found it had failed. Tried resetting its prefs to no avail and eventually gave up. I then used the remove script and Virus Checker told me something had altered the startup sequence which was odd as it hadn't on installation.

It had not only removed the blanker which was in WBStartup but removed THE WHOLE CON-TENTS OF MY S: DIRECTORY. To say I was not pleased is an understatement. Without Virus Checker which loads on startup, I would not have discovered the S Dir massacre and could have switched off with disastrous consequences. Quarterback saved the day restoring S:

I was lucky. I'm sure others were not. I know you can't check the progs with every Amiga configuration, but this prog looks like trouble. I don't think my set up was the problem: A500 version 6A 1/2 Mb trapdoor expansion configured for 1MB chip RAM, KS2.04 and WB2, GVP 40Mb HD with 2Mb fast RAM 880KB external floppy drive and Epson FX80 printer.

Thanks again for SuperBase.

Rab Dingwall
Rainham

Dear Rab,
Glad you are pleased with SuperBase and yes, I agree about dongles, they are a problem. (I have a joystick switcher, one side for the dongle and the other for the stick).

As for the installer problems. Well, they were exasperated by the wrong version of lha being put onto the Coverdisk, which for some strange reason took ages to be changed. (The lead time required to make the SuperDisks means that by the time we get any feedback, we've already made the next few. Still, all sorted now. ED.) The number of replies printed on a particular topic in no way means that replies get held over. We also tag the letters so that you can skip the letters that are of no interest to you.

Readers vary in ability and if you read their letters carefully, you can sometimes get a fairly good idea of what help a particular reader needs. This could vary between a simple statement to install xzy.library in the correct place to a complete step by step list of things to do.

As a matter of interest, we have printed a tutorial on how to use Lha, but you missed it. That's another reason why it is necessary to keep answering the letters.

I have just had a look at the deinstall script and there is nothing really wrong with it, except that it is designed to remove an entire directory. If you

installed the programs within one of your own directories, then you could indeed do some mischief.

I have manually installed GBlanker into RAM: and tried it out, and the modules I have tried work very well. Change the tooltype DELAY setting to something like 10 and you will be able to see things a lot quicker.

The system I tested this on is an A2000 + 2630 +WB2.04, almost the same vintage as your system.

COVERDISK

Dear *AUI*

I recently purchased your July 1994 magazine and straight afterwards decided to pop into Comet and get Coverdisk 40 as I do not own a CD drive.

I then went and un-archived some of the programs from Coverdisk 39 and found that when GBlanker loaded it was OK, but when it loaded its blankers, the blanker crashed. I tried resetting my computer and loading a different blanker, but found the same, this happened to ALL the blankers. I then went into my brother's bedroom and did the exact same thing and also found that it did not work. Then not giving up that easily, I decided to pop round my friend and try it on his machine, guess what? The blankers did not work on his machine either.

Is there something faulty with how I installed the program, is it the Coverdisk, or is the program corrupt?

The computers are as follows:

Mine: A600, 1 Meg upgrade (trapdoor), 60 Meg Hard-drive, external floppy.

Brother's: A500+, 1 Meg upgrade (trapdoor), 42 Meg Hard-drive (GVP), 2 Meg memory (in Hard-drive), total memory = 2 Meg chip/2 Meg fast), external floppy.

Friends: A1200, 80 Meg Hard-drive.

This was the only problem and I await a way of fixing it.

Malcolm Williams
Ken

Dear Malcolm,

You are not the only person having problems with GBlanker. I think that it is interacting with something. All I can say is that I have tested it here and it does work. My system is a A2000 WB2.04, which is very similar to your A600 and the A500+

The only thing that I did which may have a bearing is NOT use the installer script. I installed GBlanker manually. Make sure that you have the blanker programs in a blanker directory off the main GBlanker directory and things should work.

Remember to kill any commodities that you may have running especially from WBstartup.

COVERDISK

Dear *AUI*,

I have always been able to decrunch the cover disks successfully and could not see the problem others where having, but Coverdisk 39 has me beaten. I have been able to use the new decruncher okay with the other programs, but I want GBlanker *(Surprise me! ED)* and I keep getting error #8000004 coming up. Before you say anything I have put the required tools library into the libs drawer, but the disk keeps crashing on me. I am not really into computers on a programming scale so do not now what to do next.

My system consists of an A500+, a Reference 100 MB hard drive and 1 MB of RAM. I really wanted to use the screen blanker as I think that the one in the commodities draw on Extras 2.0 (a blank screen) is really boring.

C Allen

Dear C Allen,

As you will have spotted several readers are having problems with GBlanker. I think that it is interacting with something in the various readers' systems. Perhaps an existing screen blanker, or other commodity. I have manually installed it and it worked on an A2000 WB2 and on an A4000. You could try creating a bare floppy boot disk and booting from that (having installed GBlanker on the floppy). If that works then you can be fairly sure that some other software is upsetting GBlanker. Whatever the problem is, it does point to some rather poor coding within GBlanker.

COVERDISK

Dear *AUI*,

Re: Superdisk No.39. I have an Amiga 600 with 1 MB RAM expansion + clock and a 60 MB IDE 2.5" hard drive. I am having problems with 2 of the programs on the above disk.

1. I have used the installer that is with GBlanker and did it as a novice so it was put in Sys: WBstartup but when the elapsed time has passed for it to work is all that comes up is a Software failure window that says the program failed and quotes "error #80000003'" in brackets.

I have copied all of the things it needs, but still it will not work.

2. I have also had a lot of trouble with LhaDir.DOpus. I have found RexxMast, but can not locate the Rexx: directory. The only directory I found on my system was a directory called Rexxc.

It may just be me, as I am a fairly inexperienced user, but I do find some of the instructions a little difficult to follow. Has one of your staff actually installed all of the programs, if possible, on the computers they should work on.

I would appreciate all the help possible in resolving my problems.

R.J.Brown
Lincoln

Dear R.J.Brown

GBlanker seem to be rather unstable for some reason. I have tried it on an A2000 and A4000 and it works. However, you are not alone with GBlanker failing with a program failure. I suspect that there may be several different things that are upsetting GBlanker. The only different thing I did was to install GBlanker manually. As it is only one of many screen blankers I would suggest that you don't use it. (Gary Fenton, who did that disk, sends his apologies, but the program worked without problem when tested.)

Rexxc is another common name used for the Rexx programs. Open a shell window and type ASSIGN <ret> you will see a list of assignments, see if you can spot an assignment for Rexx. If you do I expect that it will be pointing to Rexxc, if this is the case then you can use Rexxc as if it were Rexx.

*Assign is a very powerful and useful command that allows you to tread a directory as a device, even if that directory is a sub directory buried in your hard drive somewhere. If you had a directory called **AUI**, which was located in DH0:Newsagents/Magazines/ComputerMags/AmigaMags/TheBestMAG I think that you would quickly become tired of typing that lot in every time. You can use the ASSIGN command to make life easier.*

*ASSIGN DH0:Newsagents/Magazines/ComputerMags/AmigaMags/TheBestMAG **AUI:** will create a device that points to the subdirectory TheBestMAG, so you can CD **AUI:** rather than typing the whole directory path.*

If you need to make an assign permanent, just edit your User-Startup file to include the assign command.

AUI

When writing to Amiga Answers include as much information as possible about your system and about which software/hardware you are running. This will help to determine what your problem might be and its solution!

Send your questions to:
Amiga Answers
Amiga User International
48 George Street, London W1H 5RF

write to reply

Bud Vennos answers for the sins and swells with the compliments in the *AUI* postbag.

Dear *AUI*,
Has (Eagle Software) Done The Dirty And Flown The Nest?

My name is Karl Williams, one of many thousands of AUI readers in the U.K. I have had enjoyment from your AUI mag for nearly two years and personally reckon it's a hard cookie to beat.

HOWEVER! A few months ago I sent for some computer software from a company which I myself saw in your mag and felt re-assured because the advert in question keeps appearing and has re-appeared in the July issue of *AUI*.

I was obviously wrong! It turns out that the company in question went bust a while back. *AUI* you have a responsibility to check out the clients who advertise in your mag. I mean come-on *AUI*, it is people like me and all other Amiga enthusiasts that buy your mag that keep you in business. You have failed to safeguard us from the company in question. I am just one of many *AUI* readers who has lost by not receiving their goods from this company.

I am disappointed about the whole affair and ask you nicely to print this letter where it can be clearly read by fellow *AUI* readers. Originally I ordered from a back issue of *AUI* as well as from a recent one, so even if you stop printing the ad. in question readers may still order software and pay out hard earned money by ordering from back issues of *AUI*.

I speak for all fellow *AUI READERS* and now offer you the *WRITE to REPLY!*

Karl Williams

Dear Karl,
*Yes, we at **AUI** are responsible for all the advertisers who go bust, die, get divorced and beat their ex-wives or become anorexic, bulimic, change sex and marry Prince Charles. We are also responsible for heat waves, earthquakes, stock market crashes, comets falling out the ether and Patrick Moore. No, sorry we are not responsible for Patrick Moore (Or that awful TV show he is alleged to appear in called "Games Mistress").*

*Yes, if you have lost money to a dishonest or incompetent advertiser or have a complaint, justified or unjustified agin' someone that you have become aware of through the pages of **AUI**, we are sorry and realise it is a serious matter. (Money and hurt feelings always are!). But what do you want us to do? Follow through every purchase that anyone makes with every single advertiser in our pages? We are a magazine not an investigation agency.*

Yes, we do check out, as far as is practical the bona fides of the advertisers but who is to say that even after they show clean at an initial investigation they don't go bad on you – and us. For it's probable if an advertiser goes down or disappears it will owe more in unpaid advertising bills to magazines that to any individual purchaser. Yes, it's harder if it comes out of your very own pocket than out of the bank account of a company but there are several rules to follow in any business transaction. And for mail order purchases, I have mentioned a few before in these columns.

One I would repeat is that you only pay by credit card and that you make absolutely certain you are dealing with a legitimate company. No doubt achieving the latter is easier said than done but remember what the Romans said; "Caveat Emptor" - buyer beware.

Dear *AUI*,
"The Amiga's just a games machine that can word process." I'm sure many of us have heard this phrase during the time we have owned our favourite system, mainly used by those immature PC types.

Although the Amiga is regarded as little more than a games machine by the uninformed, with recent software titles exploiting the Amiga's potential, it is clear that the future for Amiga owners is brighter than ever before. PageStream 3, for example, will take the Amiga into new realms of desktop publishing. The title, as you already know, includes over 50 features that aren't even present in the forthcoming version 3.3 of XPress, and hundreds more than other desktop publishing packages on other platforms. PageStream 3 will firmly establish the Amiga as the leading desktop publishing system.

Another example of high standard Amiga software is Real 3D. Version 2.40 for example, is simply the most powerful ray-tracer available. It is at least on par with Silicon Graphics programs costing thousands. According to Realsoft, Version 3 is also planned, and with this the Amiga will be far and away the leader of the ray-tracing field. And let's not forget ProVector 3, ADPro 2.5, TV Paint 2, Brilliance 2, Bars and Pipes Professional, Image FX 2, MorphPlus, Lightwave, and the up-and-coming Final Writer 3.

And another thing . . . what have most of these titles got in common? That's right, they adhere to Commodore's Workbench guidelines, and seeing as Workbench is the most powerful operating system available (easily outperforming Windows and System), these titles guarantee an incredibly versatile and user-friendly environment.

If we're being honest, it's clear that the tables have turned. PC owners have recently taken a huge interest (to describe it lightly) in Doom and similar titles. While the PC is becoming increasingly popular with the games fanatic, professionals and serious enthusiasts are realising the benefits of using the Amiga. I even know of many PC users who are switching to the Amiga. Basically what I'm trying to say is that the PC is, in comparison with the Amiga, just a games machine that can word process.

Nathan White
Walsall, W. Midland

Dear Nathan,
*I have a friend, a person of the feminine gender, who when I invite her to spend a romantic weekend with me in some place like Paris or the Seychelles and describe all the delights there, including, in detail some plans that I cannot put on this page for fear of **AUI** ending up on the top shelf of the newsagents, she merely shrugs and answers "Dream on!".*

Which is what I have to say to you. Dream on, Nathan. Not because your loyalty to the Amiga isn't admirable. It is and in the blood cells of any longterm AUI readers there are plenty of corpuscles muttering just the same sort of utterance. Until they are attacked by the vicious white cells of reason that extirpate all deviants and intruders.

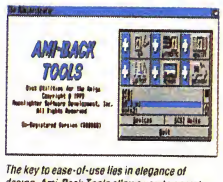
For the Amiga, we must face it whether we like it or not, is struggling. Manfully - or I should say, personfully - struggling but having a hard time of it because of the sheer weight of highly persuasive cash that is being poured into the welcoming laps of the best developers in the business - and that means the Amiga loving developers too.

Programs like Pagestream 3 may give the Amiga a edge for while but R&D is an expensive affair and for developers to recoup their costs they need a growing market. And the PC market is growing at a fantastic pace while the Amiga, at best is still ambling (And at the time of writing though not we hope in the future - at an almost complete stop.)

And I'm sorry to say that Pagestream 3 is still vapourware - any program is until it reaches our disk drives.

Yes, the PC was a heap of disparate junk that conned its way into the businesses of the world much to the delight of MicroSoft and the million and three sharpies who antlike work on the next and the next and the next version of their software but the Amiga has stood still for some time now -

SAFEGUARD



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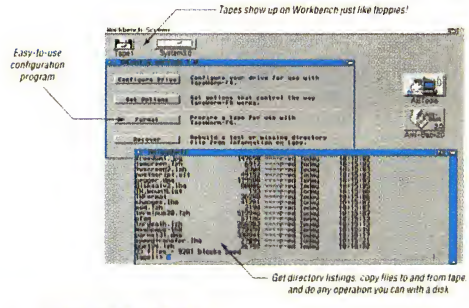

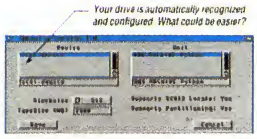

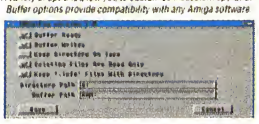

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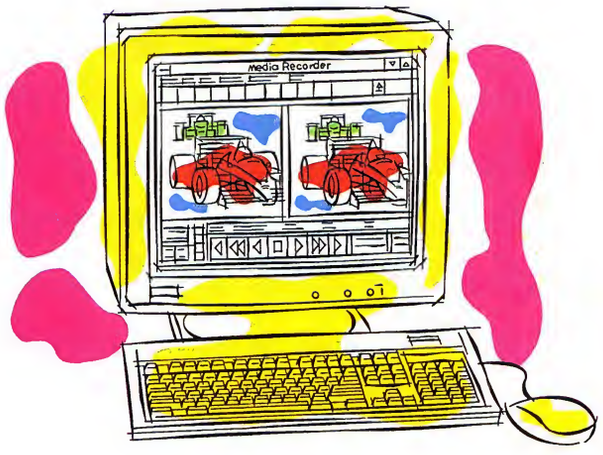
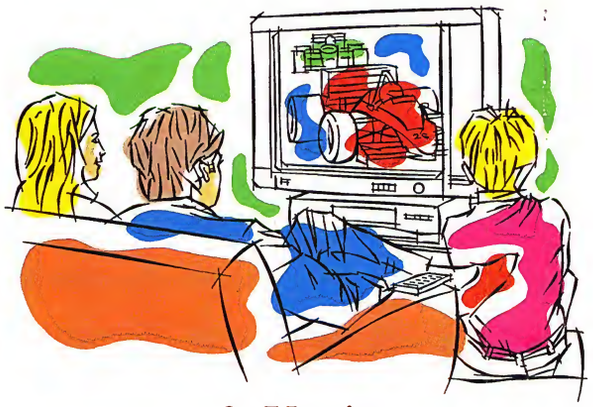


2. Convert it



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